

Tasmania.

The Beautiful and Fertile Island State.

Huge Apple Crop Being Harvested.

(By Our Correspondent.)

TASMANIA is an island of charm. For scenic beauty it is unexcelled in the Commonwealth, and for productiveness it is far-famed. Tasmania combines beauty and utility.

The journey from Launceston to Hobart—about 130 miles—was full of interest, and the mountain scenery magnificent.

Nearly every scene in Tasmania terminates in a mountain for a background, and their towering forms are a pleasing feature of the journey to the southern capital. Hobart itself is delightfully situated at the foot of Mount Wellington, which rises to a height of 4,166 feet above one of the finest harbors in the world. Tugs are never used, and the largest vessels afloat are able to berth at the piers in this broad estuary of the Derwent. A succession of bays and headlands add to the natural beauty of the harbor, while the towering dome of Mount Wellington puts the finishing touch to a picture of nature's own making not seen in any other part of the Commonwealth. There is something about Tasmania that gets into the blood. The bracing air makes even the most casual visitor feel the ecstasy of living.

At the time of writing, brilliant sunshine, tempered by cool sea breezes, sweep away the clouds that usually hang like a pall over Mount Wellington. The scent of wild-flowers growing on the wooded slopes, where gum, acacia, and myrtle flourish, take possession of you. Hobart means something more intriguing to the lover of nature than any other city. It compels wonder to those who have travelled the world and have seen those landscapes that artists love to put on canvas.

Many times have I stood on mountains in other parts of the world, but never have I seen such a perfect panorama as that which was unfolded to me as I stood on the slopes of Mount Wellington. The city below me, clothed in a soft grey haze, the sparkling blue water of the Derwent, the tiny sails of yachts adding a splash of color to the picture as they skim over the surface. The beautiful little bays and inlets, with their sandy beaches, all impress you with a feeling almost of reverence.

The ascent of this beautiful mountain is made with-

out difficulty, for there is an excellent motor service and a fine hotel provides every comfort for tourists. The fern bower is one of the main attractions of the Mount, for here, beneath a canopy of tall ferns, are shelters and seats for the tired but happy hiker of the hills. The summit is reached by a walk at about one and a-half hours from the Springs, which is the terminus of the 'buses and cars.

Beauty spots and places of interest abound in the vicinity of the city, and the visitor is never at a loss in finding something that will both please and interest him every hour of the day.

Sandy Bay, the St. Kilda of Hobart, is only a short tram ride from the Post Office, and is very popular. For beauty of setting, it leaves St. Kilda far behind, and the view from the beach across the water, studded with small craft, is delightful.

Brown's River is a beautiful resort eleven miles from Hobart, where the mighty Pacific breaks on the finest surfing beach in the island. New Norfolk, in the Derwent Valley is another popular resort for the tourist. Its beauty has inspired poets and writers of many nationalities to sing its praises and none have exaggerated the glorious rural beauty of this little bit of old England in a Tasmanian setting.

The journey up the Derwent Valley can be accomplished in a day. After having viewed the glories of New Norfolk, the tourist continues on to the Salmon Ponds, where the elusive fish are reared that tempt the angler from all parts of the Commonwealth to the rivers of Tasmania. Twelve miles from New Norfolk the Crooke River flows into the Derwent. This mountain stream is stocked with trout and is a delight to disciples of Isaac Walton. Falling over precipitous rocky ledges and chasms, gliding through deep ferny glades, and then boiling over rapids that end in a fall of 200 feet—Russell Falls is certainly a charming spot that should not be missed by visitors from the mainland.

National Park, in which area the Russell Falls is situated, is a reserve of 38,500 acres, about 50 miles from Hobart, controlled by the National Park Board in all its primitive beauty, from encroachment by settlers. This was necessary, because many of the mountains about

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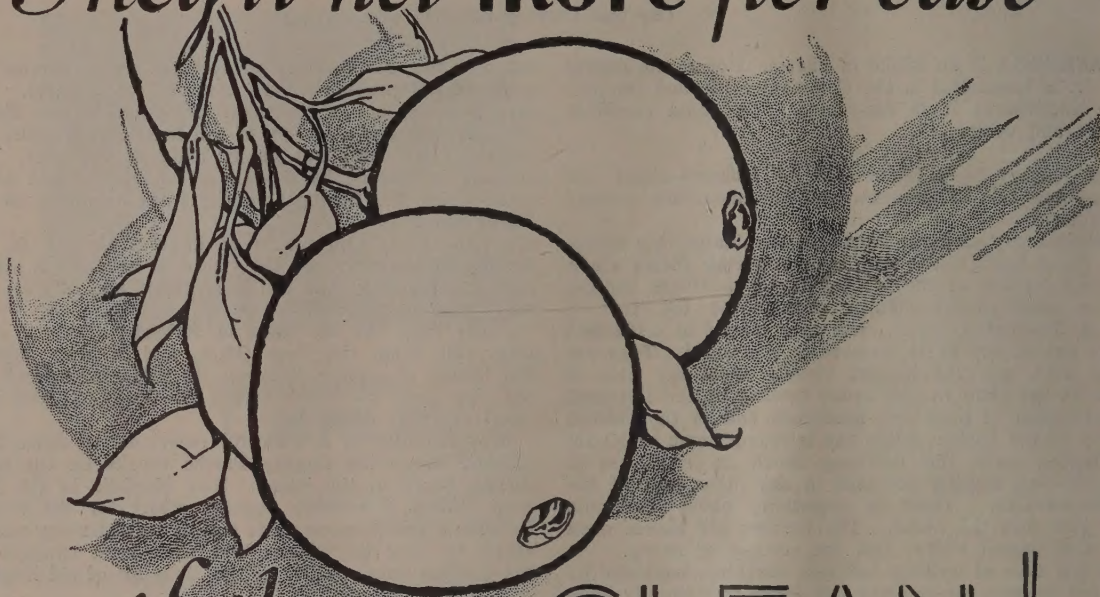
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Hobart have passed into private hands, filched from the people by the march of civilisation. National Park contains wild mountain scenery, waterfalls and lakes, peeps into awesome canyons with a sheer drop of 2,000 feet into the valley of the Florentine.

The forest scenery at the lower levels is exceptionally fine. Eucalyptus forms the principal vegetation, but there is an abundance of myrtle, blackwood, leatherwood, beech, sassafras, bauera, laurel, waratah, grass trees, pines, and magnificent tree ferns. Animal life is represented by kangaroo, wombat, tiger and native cats, and the Tasmanian devil. Ski-ing and ice skating are indulged in during the winter months, and six camp huts have been provided for those who indulge in these sports. When Lake Fenton freezes hard, skaters have a straight mile of ice to travel on. Skis and alpenstock are available at Lake Fenton Camp for visitors.

Every tourist to Tasmania is drawn to Port Arthur by reason of the publicity given to it by Marcus Clark's great story "For the Term of His Natural Life." The picturesque ruins of the old penal settlement, the gruesome relics of barbarous devilry that were the lot of the poor unfortunates who were "disciplined" in the dark cells of this ancient prison, will always prove interesting to visitors. The picturesque ivy-clad church, now in ruins, the oak avenue, the Isle of the Dead—where nearly 2,000 convicts were buried after suffering the tortures of the damned, the model prison, infirmary, the commandant's residence, all are eloquent reminders of the dreadful days that were described by Marcus Clark, and which perhaps are better forgotten. The ravages of time, however, is slowly but surely blotting out this pathetic relic of the past.

Port Arthur is 60 miles from Hobart, and the town is situated on a delightful little bay. The streets have avenues of oaks as well as some fine specimens of native gums. For a "rest cure," it is now an ideal spot for the tired city man who is content to pass the time fishing, or sit contentedly under an oak with a book to study. There are many fine beaches round Port Arthur and at Remarkable Cave you can walk right through this well-named

freak of nature at low tide to the fine beach upon which it opens.

The coast scenery here is grand, and the great ocean rollers beat upon the jagged rocks and dash the spray hundreds of feet into the air. Across the bay is the mountain known as Arthur's Seat, and for those who care to scale it, there is a magnificent view of the wild coast line. The historic Eaglehawk Neck is about 12 miles from Port Arthur. This is the narrow neck of land with a beach on each side, where, during the convict days, fierce dogs were chained to prevent convicts from escaping across the peninsula.

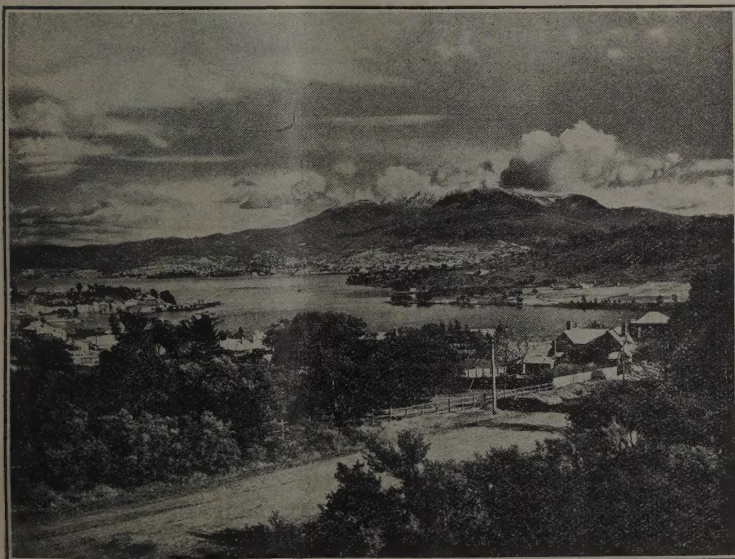
Within a mile or two of Port Arthur there are many other unique sights to see. One of them is the Blow-hole at the end of the bay, where the waves dash with such great force that the iron stanchions driven into the rocks to form a handrail, have been bent and twisted like rubber. Close by is Tasman's Arch, and the fissure known as the Devil's Kitchen, both formed by the actions of the waves. Then there is the Tesselated Pavement, where the rocks have been cut and smoothed into the form of a pavement as though by the hand of a master mason. It is a pocket edition of the Giant's Causeway, in Ireland, one of the nine wonders of the world.

APPLE-GROWING IN TASMANIA.

Tasmania has 23,679 acres under Apples. The harvest in 1930-31 was 3,750,000 bushels; the year previous the total was 3,950,000 bushels. The Apple harvest for 1932 is estimated at 4,000,000 bushels. These are wonderfully consistent figures.

Here is an interesting comparison:—In 1920-21 the area under Apples was 25,610 acres, in 1930-31 23,769 acres—decrease 1,841 acres.

The average production from 1921 to 1926 was 2,869,977 bushels, average 111 bushels per acre: from 1926 to 1931 the production was 3,554,000 bushels, 145 bushels per acre—increase 684,623 bushels, or 34 bushels per acre.



A View of Hobart from
Bellerive.

—(Beattie photo.)

THE HUON VALLEY.

THE MOST PROLIFIC APPLE-GROWING district in Tasmania, and probably the world, is the Huon Valley, in the southern portion of the island State. Fruit trees were first planted in the Huon in 1843 by the late Thomas Judd. He was followed shortly afterwards by other pioneer orchardists in Silas Parsons at Grove and William Barnet and William Cuthbert at Franklin. In 1851 William Geeves planted the first orchard at Geeveston, and laid the foundation of a thriving district that now produces prolific crops of Sturmer Pippins and French Crabs.

Age does not seem to impair the productivity of Apple trees in the Huon, for there are many of the trees planted by the pioneers that are still bearing good crops. The average yield of a full-bearing orchard is between 400 and 500 bushels per acre, but there are orchards that yield 1,000 bushels per acre, and one small orchard of $3\frac{1}{2}$ acres at Geeveston has produced as much as 4,200 bushels of marketable Apples in one season. The orchardists rewarded with this remarkable result were Messrs. R. and H. Thiessen, who have large holdings that produce nearly as well as this particular orchard.

The limit of record production, however, was reached last season, when an acre of Sturmers on the orchard of Mr. J. S. Griggs at South Franklin yielded 1,900 bushels.

There are 12,750 acres of full-bearing orchards in the Huon, and the average crop is about 2,500,000 bushels yearly. This year the crops are likely to exceed the average by nearly a million bushels, in the opinion of growers of long experience, and they are looking forward to good prices both in Australia and overseas.

Many growers have already sold their crops to representatives of overseas buyers at a satisfactory figure, but the majority of them are holding out for higher prices, which they feel sure will be the outcome of light crops on the mainland, and the restricted quantities of American Apples on the English market.

There are about fifty small mills cutting fruit case material to supply the needs of the growers in Southern Tasmania, and as five super feet of timber is required for each case, these mills have to use $12\frac{1}{2}$ million feet of timber each year to meet the requirements of growers. At Huonville and Franklin new factories are turning out dressed and seasoned hardwood cases that are a great improvement on the rough-looking dump case, and these

enterprises are being watched with considerable interest by growers.

Wood-wool factories are established at Franklin, Cygnet, Huonville, Ranelagh, and Ketering.

Cool Stores.—At Cygnet and Huonville there are cool stores that are each capable of storing 40,000 cases of Apples and Pears, while at Port Huon the two stores each have a capacity of 50,000 cases.

If it is found desirable to pre-cool fruit for the overseas markets, these stores will be of great value, especially when direct shipments to distant markets are operating from Port Huon. Arrangements have been made for overseas shipping to call at Port Huon this season.

Over half a million cases annually pass over the Port Huon wharf, and a smaller quantity is shipped from Cygnet to the mainland ports.

The Huon River is second only to the Derwent for natural harbors and waterways. The mouth is over a mile wide and the depth of water for the first few miles is 105 feet. Ten miles up the Huon there is sufficient depth of water to carry the largest vessels afloat, and no dredging of any kind has been done up to this point.

What promises to be one of the largest industries in the Commonwealth is now being established on the banks of this great river at Kermadie, near Geeveston. This is the

paper pulp works,

that is expected to produce 100 tons of newsprint per day in the near future. There is unlimited supplies of paper-making timber in the locality, and the new venture has great possibilities.

Castle Forbes Bay.

IN a country where orchards are of varying sizes and situation, it is not easy to pick out individual orchardists of outstanding merit, but it is generally agreed that Mr. Ben Watson, of Castle Forbes Bay, has one of the finest properties in the Huon. Sheltered on three sides by timber and overlooking the bay named after the vessel that carried one of Van Diemen's gallant captains up the Huon on a voyage of discovery, Mr. Watson's orchard is situated in ideal surroundings. It is the show place of the district, and is an object-lesson to younger orchardists who plan to become successful growers of the island's leading product.



A Typical Tasmanian Orchard Scene.

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dam.

There are two orchards, the main one being of 40 acres and a smaller one of 9 acres. At the large orchard the leading varieties grown are Cleopatra, Jonathan, Sturmer, Crofton, Democrat, Scarlet Pearmain, Ribston, Rome Beauty, and French Crabs. Every tree looks a picture of health, and the uniformity of the orchard, tilth of soil, etc., bear ample evidence of the work of experts in their particular sphere. The orchard produces 27,000 bushels in an average year, but that estimate will be exceeded this year. The spraying methods adopted by Mr. Watson have been a factor in the success of this enterprising orchardist, and his formula has been adopted by numerous growers throughout the Huon. For several years he had experimented until he had evolved a spraying programme that satisfied him. He has followed it now for eight years with splendid results, both in wet and dry seasons.

The spray calendar followed rigidly was:—

- (1) 6 lb. bluestone, 4 lb. lime, 40 gals. water, to be applied when the buds are in green tip.
- (2) 2½ gals. lime sulphur to 40 gals. water when buds are in the pink.
- (3) 1 gal. lime sulphur and 1 lb. arsenate of lead powder in the calyx stage.
- (4) 5 lb. atomic sulphur with second lead spray.
- (5) Ditto with third lead spray.
- (6) Ditto with fourth lead spray.

The lead sprays are put on at intervals of one month. Mr. Watson uses a tractor to haul the spraying outfit through the orchard.

An Orchardist's Home.

A beautiful and well-kept garden surrounds the attractive modern villa that is the home of this successful orchardist. Commodious and comfortable, this home stands out from a background of tall timber like a beacon of light. A mountain stream ripples through a ferny glen almost at the front door, and beside it is a tennis court, where relaxation from the work of the orchard is provided in surroundings that is lavishly bestowed by nature with the beauty of the bush, and the added touch of artistry by the hand of man, blending in harmony. The city offers no lures to Mr. and Mrs. Watson and their family, for theirs is the ideal home set in a frame that does full justice to its poetic beauty.

Stationary Spray Plant.

Some of the oldest trees in the Huon are seen in the orchard adjoining Mr. Watson. This is the holding of Mr. G. H. Kile, whose 25 acres of Apples and mixed fruits are sprayed with the aid of a stationary plant. Every part of the orchard is reached by pipes that are tapped at every 180 feet. Attached to the tap are hoses 120 feet long, so that a large number of trees can be sprayed without resort to the adjoining tap. The spraying formula used by Mr. Watson is adopted here with similar results.

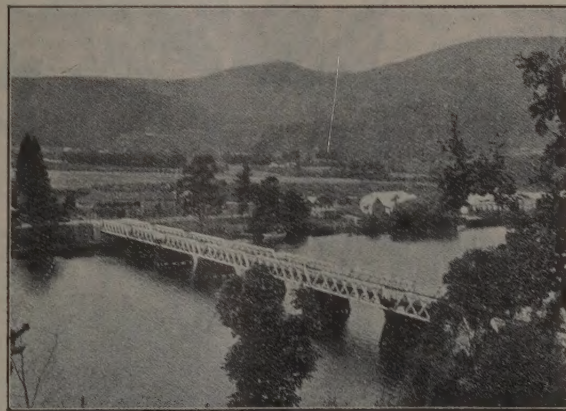
Another successful orchardist at Castle Forbes Bay is Mr. L. G. Murrell, whose 18 acres is estimated by him to produce 10,000 bushels of Apples this year. This is not a record year for him, for this orchard produced 12,000 bushels in 1928. The leading varieties grown are Cleopatra, Sturmer, Jonathan, Scarlets and Crabs. Geveston Fanny, Cox's, Adams, Croftons, and Worcesters are also grown. This orchardist also takes a pride in his garden, and despite the dryness of the weather at the commencement of the new year, had an attractive display of blooms.

Mr. V. D. Sheppard, owner of the evaporation works at Castle Forbes Bay, puts 20,000 bushels of Apples through the factory each season. Dried Apples are supplied to all parts of the Commonwealth, but the competition from the American product abroad prevents much

chance of expansion outside of Australia. Mr. Sheppard has an orchard of eight acres that produce mostly French Crabs, a variety that lend themselves to evaporation purposes.

Tasmanian orchardists are now busily engaged picking one of the largest crops the island has produced, and all that is required to make the lot of the grower completely happy is a good price for his produce. There is a feeling abroad that the English market will not be so good as it was in 1931, and many growers are likely to concentrate on local markets. The writer found many growers last month undecided about the disposal of their fruit. Many were definite on export markets, while quite a number had agreed to dispose of their whole crop (all varieties included), packed and delivered to the nearest Tasmanian port at a set price. Others were willing to sell portion of their crop at prices offered by agents, but were holding on to certain varieties, such as Democrats, Granny Smiths, and Alfristons. The unusual demand for the latter varieties that has developed, is making the grower unwilling to dispose of them until the market is in a more settled condition.

Many of the Apple orchards of the Huon were showing signs of the prolonged dry spell in January and early February, and caused much uneasiness among growers.



Huon River and Bridge at Huonville, Tasmania.

Some growers who had water available were seen irrigating, but quite a number of growers who could have irrigated their orchards, would not do so because of their fixed opinions on the subject. They are against irrigation because they believe the watering of trees during dry weather affects the keeping qualities of the fruit. Mr. G. Oates, of Grove, was particularly emphatic on this point and contended that irrigation also injured the trees for future production. Mr. Oates has the Mountain River running through his property, and steadfastly refuses to use it for irrigation purposes. He has a nursery that has established a name for the quality of its fruit trees, and he will not produce a tree that has received other than natural moisture.

As a result of inquiries among growers in the Huon, it was found that many agreed with Mr. Oates, and the majority contended that the rainfall along the Huon was sufficient in any ordinary year to ensure enough moisture for the trees without resort to artificial means.

Those who were watering their trees during January said they were doing so because of the exceptional dryness and were afraid of a stoppage in the growth of the

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fruit. It was many years since they had resource to water and they only did so under exceptional circumstances.

Apple trees, however, were looking remarkably well in the majority of orchards, and the fruit was well grown. Good cultivation and spraying methods, together with the heavy rains that saturated the subsoil during the winter, was no doubt responsible for this. On all sides, there was evidence of drastic thinning among the trees with beneficial results.

It was therefore surprising to find that in other parts of Southern Tasmania irrigation was essential and provision was made for the watering of orchards in New Norfolk, and at the largest orchard in Tasmania, namely, Rostrevor Estate at Triabunna.

Abundant rains in February settled all doubts with regard to the future of the crops, and growers were considerably relieved.

ROSTREVOR ESTATE.

Largest Orchard in Tasmania.

The largest orchard in Tasmania is situated at Triabunna, on the East Coast. It is part of the Rostrevor Estate that was acquired 28 years ago by the late Sir Henry Jones, of Hobart. The estate was formerly the property of Captain Michael Vickery, who was Commandant of the Spring Bay convict settlement in the early days. The 6,000 acres that comprise the estate was granted as a sheep station by the Government to Captain Vickery as a reward for his services, and he remained in possession for about 20 years. He died in 1846 and was buried on the estate.

A stable building of stone and shearing shed made from local timber by the convicts were the only buildings on the place when Mr. S. W. Gould, the present manager,

was sent to lay out the orchard on behalf of the fruit magnate, whose business ability has made the name of Jones famous in Tasmania.

During his first year on the estate, Mr. Gould and the men under him planted fifty acres of orchard. Planting was continued with trees mostly purchased from Mr. C. J. Goodman, of Gippsland, until in 1929 there were 460 acres of fruit trees at Rostrevor. Mr. Gould still reigns as manager of this vast orchard property, and he has 60 employees to-day, who are constantly engaged on the estate. 2,500 sheep are run on the adjacent hills, and oats are grown to feed the twenty horses that plough the land after the tractors have done the rough work of cultivating.

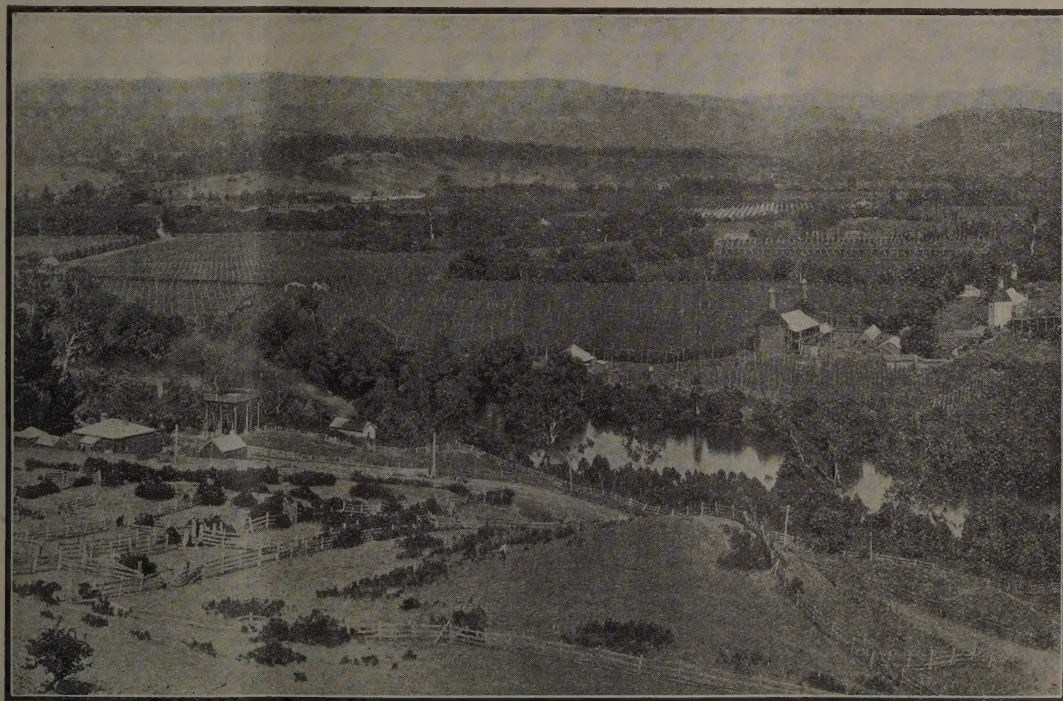
In order

to irrigate the orchards

that stretch for two miles and a half along the road that runs through the estate, a dam was built across the valley in which Rostrevor is situated, at a cost of £5,000. The reservoir thus formed holds 88,500,000 gallons of water. A pumping plant forces this water through pipe lines and water channels to every part of the orchard. Irrigating is carried on whenever the trees need water, and this necessary work was in progress during the course of our visit at the end of January.

The cluster of buildings about the packing shed, which is made of military huts formerly used at Claremont Camp, has been recently added to by the building of a large cool store to hold 12,000 cases. This will be in operation during the present season, and was built at a cost of £3,000.

An enormous quantity of case material is stacked under shelter in readiness for the pack, which was estimated to be 60,000 cases. A large American "Cutler" grader is used in the packing house, and all fruit cases are marked with the registered brand "Rostrevor" before leaving the orchard.



A View of Bushy Park, Derwent Valley, Southern Tasmania.

—(Beattie photo.)

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With the exception of 6,000 cases of Plums and 200 cases of Quinces, the orchards of Rostrevor are producing Apples and Pears. The varieties of Apples grown are:—Cox's, Tasman's Pride, Jonathan, Sturmer, Cleopatra, Scarlets, Granny Smith, Delicious, Democrat, and Crofton. The varieties of Pears grown are:—Williams, Beurre Bosc, Beurre Clairgeau, Josephine de Malines, Glou Morceau, Duchess, Beurre d'Anjou, Packhams, Keiffer, Winter Nelis and Doyenne de Comice.

It was noticeable that every tree stands its own weight of fruit and no staking or wiring was necessary to support the limbs. This has been brought about by scientific pruning. The land is limed every third year, and Horse Beans grown as a cover crop are ploughed in with 1 cwt. of super every second year.

Spraying methods similar to the programme laid down by Mr. Ben Watson are in operation, excepting the calyx spray. For red spider and powdery mildew, a nitric soda and caustic winter spray is used during the month of August.

Rostrevor is particularly free from pests, and when codlin was traced to a small orchard in the vicinity of the estate, owned by an orchardist who was careless in control methods, it was suggested by Mr. Gould that he should be bought out. This was done, and when the small orchard was cleaned up by the estate employees, codlin no longer made its appearance in the big orchard, except at rare intervals.

The uniform planting of the trees is very noticeable, and the age of the trees can be easily recognised as one passes along the road, for they range in order from yearlings up to bearing trees. Another notable feature was the grafting of one limb of Winter Nelis on William's Pear trees for pollination purposes. Another reason for the grafting of the Winter Nelis on Williams, given by Mr. Gould, was that it gave a nice round appearance to the fruit. Two thousand Winter Bartletts, regrafted with better varieties on another block, had been done without a miss in a single instance.

One Pear orchard of 30 acres, in which the trees were 20 feet apart and 60 trees deep, looked particularly attractive in full bearing, but pride of place on this chain of orchards was the fine display made by Tasman's Pride in

the Apple section. This variety does splendidly in this country and this year the yield is a record.

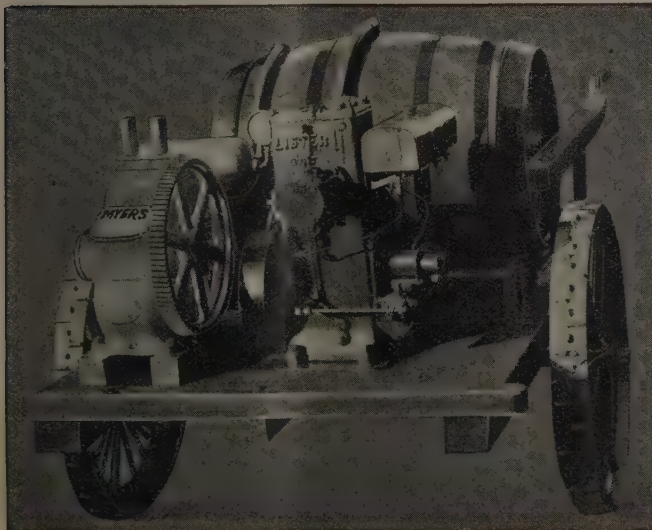
The Plums grown are Jones' Favorite and Blue Imperitas, and altogether there are 35 acres of them. These are all absorbed by the Hobart factory for jam-making. Canning Pears also go to Hobart, but the main crop of Apples and Pears from Rostrevor is for export.

"FOREST HOME."

One of the largest and most interesting orchards in the Huon district is "Forest Home," the property of Messrs. W. H. and D. F. Calvert. This fine orchard of between 60 and 70 acres in extent is situated close to the bank of the Huon at Judbury, about 12 miles from Huonville. Portions of the land is low lying and on these flats cattle and sheep are run. Part of the orchard is also in the low-lying area, and in 1913 a big flood swept through the orchard, doing considerable damage to the trees. These floods are, however, a rare visitation, and a levee bank that has since been erected will protect the orchards if future floods prove as big as the 1913 event. The Huon narrows considerably near "Forest Home," but widens again a little lower down, where the bridge connects Judbury with Glen Huon.

"Forest Home" is remembered by Tasmanians as the birthplace of Madame Amy Sherwin, a famous singer, who was known as the "Tasmanian Nightingale." The Sherwin family settled at Judbury nearly a century ago, and the present orchard was formerly a hop garden cultivated by the Sherwins. Madame Sherwin, who is living a retired life in England, for many years occupied a position equal to that of the late Dame Nellie Melba in the world's musical circles.

For nearly 40 years "Forest Home" has been in the Calvert family, and some of the trees are over 60 years old. Age has not diminished their productivity, and many of these old trees are bearing splendidly. The situation of the orchard seems to be most suited for Apple-growing. The valley by the river is dotted with orchards situated on the slopes of the hills that almost completely hem in the upper reaches of the Huon River. "Forest Home," with its large cool store, stands out in this valley, and



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FRUIT**

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£1000 Fidelity Bond Guarantee.

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is the show place of the district. The cool store, in which a Werner plant is installed, was erected at a cost of \$4,000, has a storage capacity of 12,000 cases. Power is supplied from hydro-electric works, which has been extended to Judbury. Machinery for casemaking is also installed, and 30,000 cases will be made this year to pack the season's crop, which is a heavy one.

Yorks, Sturmers, and Scarlets are the main varieties grown, and these occupy about 50 acres. Some of the Sturmer trees will yield 20 bushels each, and there are Crabs and Yorks that will yield equally well. The heaviest bearers, however, are two Stone Pippins, each of which will probably yield 40 cases. While the largest part of the orchard is producing heavily this year, there is about four acres of Scarlets that will only produce half of their usual crop. Why this area is in direct contradiction to the rest of the orchard is something of a mystery, for the four acres of Scarlets usually produce about 4,000 cases in the "on" year. Mr. Calvert puts it down to the fact that these trees did not pollinate properly. However, with a total of 30,000 bushels for the whole orchard, he has little to worry about. Half the crop will be exported and half will supply the interstate markets.

Apart from using a tractor at the third ploughing, horses are used for the cultivating work at "Forest Home." Four acres of mixed oats and wheat are grown for hay and the crop on the day of inspection was looking splendid and was as level as a billiard table.

The Durham cattle and Southdown crossbred sheep browse in paddocks sown with Subterranean and White Clover, and look in prime condition. The cattle and sheep are not stocked for commercial reasons; they are kept only to supply the needs of "Forest Home," which are particularly heavy at picking time.

Spraying methods used are similar to Mr. Ben Watson's formula, except that three lead sprays are used instead of four. For grafting, pitch, beeswax, lard, and resin are mixed and painted on while hot.

A GREAT ENTERPRISE.

H. Jones & Co. Pty. Ltd.

THE DEVELOPMENT of the business of H. Jones & Co. Ltd., Hobart, is one of the greatest business stories of modern times. It is really the life story of the late Sir Henry Jones, whose remarkable business ability was responsible for the rise of a modest venture to a position unequalled in Tasmania for the huge proportions it has assumed. The late fruit magnate was formerly a jam factory employee with no schooling to boast of, but gifted with a natural ability to make the most of opportunities when they presented themselves; he grasped the chance to make good when he was offered a share in a jam preserving business that was being formed by a Hobart company.

It was not long before he assumed entire control of the company, having proved his ability to develop the business and launch out into more ambitious enterprises.

Once his feet were firmly placed on the ladder that led to success, Sir Henry Jones led the affairs of the company to such prosperity that it is now the largest enterprise of its kind in the southern hemisphere.

His genial manner and straightforward way of doing business won the respect of everybody. He took a personal interest in every employee and knew every detail of the work of every department. This won for him the co-operation of every man on the pay roll in extending the

activities of the company, which eventually branched out into every avenue of the fruit business. His death in the prime of a busy life was mourned by all who came into contact with him, and the company's establishment at Hobart is a monument to his memory.

The factory and offices cover three and a half acres of land, and there is twelve acres of floor space. Over 1,000 hands are employed in the fruit season at the factory, and the pay roll exceeds \$5,000 weekly. 138,000 tins of jam are produced daily, in addition to tinned and bottled fruits, tinned vegetables and fish. The factory is built on the water front and a 20,000 tons liner can be berthed within a few yards of the works for loading Apples. Close by are cool stores for fruit and hops with a capacity of 500,000 cubic feet, and a machine shop that produces the millions of tins that are required every year. This machine shop does a considerable amount of outside engineering work in the slack season, as well as catering for the factory requirements.

In addition to the manufacture of jams, canned fruits, sauces and fruit pulps, the firm are proprietors of extensive orchards and the largest exporters of Apples to overseas markets. They are owners of steamers and sailing vessels. Agents for several shipping lines. Have cool stores for fruit, hops, meat and fish. They are hop factors, sawmillers and timber merchants, general merchants handling spray materials, fertilisers and other orchard requisites, etc.

The factory is a hive of industry during the summer months when the fruit begins to arrive. The berry fruits are first on the scene and then follow other jam fruits, including Apricots. Very often a hundred tons of Apricots are put through the works in one day, and the manner in which they are handled by machinery that is almost human is a sight worth seeing. Machines do practically all the work that was formerly done by hand, and all they need is the attention of the factory workers and a constant supply of fruit.

The operations, starting with the weighing of the fruit as it enters the factory until the finished product is canned and labelled, is just one continuous series of movements through the various sections of the factory, that leave the onlooker amazed with the ingenuity of the minds that conceived and put into operation such a mass of intricate machinery. In the jam boiling room there are fifty steam-jacketed pans that turn out over 200 tons of jam per day. In the filling room where the hot jam is put into tins by automatic machinery and then tightly closed by another machine, there is a continuous stream of tins always on the move. Overhead runways carry the tins after they are filled to the labelling room where machines wrap the attractive I.X.L. labels on them and then send them on their journey to the packing room, ready for despatch.

138,000 tins of jam manufactured and ready for use in one day of eight hours, tells the story of the wonderful efficiency of this modern jam factory, in a few words.

E. R. Cottier Pty. Ltd., of Hobart, have installed a large "Lightning" fruit grader that will put through 2,000 cases daily, at their packing house in Salamanca-place. The "Ercot" pack sent to England last year by E. R. Cottier Pty. Ltd. was the subject of very favorable comment by the High Commissioner (Sir Granville Ryrie), and letters from the Agent-General's staff were appreciative of the quality, coloring, and general make-up of the Apples despatched from Tasmania by the firm. E. R. Cottier Pty. Ltd. represent many well-known English and Continental firms of fruit brokers.

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.. of ..

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And all

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References : National Bank of Australia

Tasmanian Shipping No. 98

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Consign your Fruit to our care, either for Local Market or shipment to China where we will take care of your interest in every detail, and dispose of your consignments to the best advantage.

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R. A. Wing & Co.

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Consignment No. R.A.W. 62.

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Growers—Market Your APPLES
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Best Prices Prompt Returns

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Fruit and Produce
.. Salesman ..26 ROMA ST. MARKETS
BRISBANE

Shipping No. 14

Prompt Advices and Account Sales

Over 30 Years Experiences in Markets

ALONG THE TAMAR.

THE APPLE orchards of the Tamar districts are good producers of quality fruit that reach maturity a little in advance of the southern orchards. Jonathans, Sturmers, Cox's, Dunn's, Gleopatras, are the chief varieties grown, and they do well in the sandy loam that predominates in the northern districts of Tasmania. The largest orchard near Launceston is that of Terry Bros., at Freshwater Point. The area under fruit here is about 200 acres. This orchard was planted out by the late Mr. C. A. Nobelius, the well-known Victorian orchardist and nurseryman, in pre-war days. There is a fine breakwind of pine trees sheltering this orchard, and it is very noticeable that the lines of Apples nearest the pines are not producing as well as they should. This is no doubt due to the pines taking too much out of the soil.

Many varieties of Apples and Pears are grown, and the fruit was more advanced than the southern orchards when we visited Freshwater Point in February, and the yield promised to be large.

Messrs. W. C. Bell and H. K. Gerrard, of Launceston, who represent overseas buyers, each have small orchards along the Tamar. Mr. Bell has 13 acres of bearing trees and Mr. Gerrard has 10 acres bearing, and nine acres of young trees, the oldest of these being seven years. Mr. Gerrard planted trees on Northern Spy stock, and seedlings from the Huon Nurseries of Mr. Gloster Oates.

Seedling and Northern Spy stock trees, planted alternatively in the same row, show marked contrast in

growth. The seedlings are making much more growth than the Spy stock, but the latter are showing fruit much sooner than the seedlings. Mr. Gerrard is watching these trees with considerable interest, for the same methods of cultivation and manuring are used for each.

Fruitgrowing has made considerable strides in Northern and North-West Tasmania. The quality of the fruit is all that could be desired. Co-operative packing sheds have been erected and substantial quantities are now being dealt with co-operatively.

By arrangement, overseas boats load export fruit at Beauty Point, River Tamar.

As the interstate boats steam along the Tamar visitors remark with pleasure on the picturesque setting of the orchards on both banks. Tamar Valley fruit commands favourable attention on the export markets, as well as on the mainland.

The Lilydale and Scottsdale districts are in Northern Tasmania, though not in the Tamar Valley. Climatic and soil conditions are very favourable for the production of high-class fruit in satisfactory quantities.

* * * *

In the North-West districts, fruit production has proved satisfactory. Buyers for local and overseas trade speak appreciatively regarding the quality of the fruit and the up-to-date handling methods. Around Spreyton and in the Mersey Valley Apples are produced which have choice flavor and long-keeping qualities.



Launceston from Trevallyn.



ELEPHANT BRAND SPRAY

Insist Upon It!

FRUIT GROWERS generally have come to depend on "Elephant" Brand Sprays. They find them absolutely reliable, efficient and of guaranteed quality.

**For this Season Use Only
"ELEPHANT" Brand**

Apples and Pears will be Scarce

Owing to the ravages of thrip, their will be a short crop of Apples and Pears this season. Every precaution should be taken to guard your crop from CODLIN MOTH by spraying with

"Elephant" Brand Arsenate of Lead - White Oil

PRICE IS COMPETITIVE — QUALITY STANDS ALONE
ONCE USED, ALWAYS USED

Remember :—"ELEPHANT" BRAND Stands for Quality

SUPPORT LOCAL MANUFACTURE

WRITE FOR PRICES AND PAMPHLET

JAQUES PTY. LTD.,

are the Actual Manufacturers and Distributors of "Elephant" Brand Sprays
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VICTORIAN FRUIT MARKETING ASSOCIATION.

THE monthly meeting of the Executive of the Victorian Fruit Marketing Association was held in the Board Room, Commercial Travellers' Association, on Thursday, February 25, 1932. Mr. J. W. Bailey presided. There were also present:—Messrs. Ward (Superintendent of Horticulture), Meeking (Exports Supt.), Mellor, Carne, Webb, Colombie, Cave, Hutchinson, Brown, Harrison and the Secretary. Visitors included:—Messrs. D. Grant (Drouin) and Hamilton (Red Hill). Apologies were received from Messrs. Mills, Ford, Lawford, Jost.

Mr. Ford (Harcourt) and Mr. T. E. Butler (Somerville) wrote appreciating the action of the V.F.M.A. in inaugurating the Thrips Investigation League. Mr. Butler stated Somerville growers had spontaneously collected £3/5/- to assist the investigation. It was decided to write thanking Messrs. Ford and Butler for their letters.

Freights.—Mr. Colombie said that a renewal of the fruit shipping agreement for 1933 was being negotiated. The industry did not want an increase in freight: if growers had to pay the full bank exchange of 25 per cent. instead of 17½ per cent. as at present, it would mean an additional 3½d. per case. United States exporters of Apples and Pears had been granted a reduction of 9d. per case in freights to Great Britain because of the lower market value of their produce: this practically offset the 10 per cent. preference in Britain. Less fruit was now going to the Continent, thus putting increased quantities in England.

Tasmanian Fruit via Melbourne.—Mr. Harrison said that the shipping of Tasmanian fruit via Melbourne was a breach of the shipping agreement; it was not in the best interests of the industry. He moved:—"That this executive, after giving consideration to the fruit shipping agreement, requests the O.S.R.A., Sydney, for a prompt telegraphic reply giving assurance that all shipowners who are parties to the agreement will observe and carry out the terms of the resolution of the Apple and Pear Export Council carried at Melbourne on January 6 in regard to the filling of space."

Mr. W. M. Carne, Plant Pathologist, Council for Scientific and Industrial Research, gave an appreciated address on the picking, packing, and transport of fruit, and was cordially thanked.

EXPORT OF FRESH FRUITS.

Amended Regulations.

THE Minister for Markets (Mr. C. A. S. Hawker) has announced that several amendments have been made to the Commerce (General Exports) Regulations so far as they relate to the export of fresh fruits, including Apples, Pears and citrus fruits. These amendments will operate during the coming export season.

The packing of the various kinds of fresh fruits for export will only be allowed in the following cases and trays. The dimensions given are inside measurements in inches, clear of divisions:—

	Length.	Depth.	Width.	
Citrus	24	11½	11½	Citrus fruits only
Citrus bushel . .	20	10	11½	Citrus fruits only
Australian bushel	18	14½	8 2-3	Apples, Pears, citrus fruits
Standard bushel .	18	10½	11½	Apples, Pears, citrus fruits
Australian half-bushel	18	7½	8 2-3	Apples, Pears, stone fruits
Standard half-bushel	18	5½	11½	Apples, stone fruits
Flat bushel	26	14½	6	Pears
Flat three-quarter-bushel	24	11½	6	Grapes only
Flat half-bushel . .	26	7½	6	Stone fruits only
Tray	18	any depth	14½	Apples, Pears, Grapes, stone fruits
Tray	18	any depth	11½	Apples, Pears, Grapes, stone fruits.

Only one layer of Apples will be permitted to be packed in each tray.

Citrus fruits intended for export to any port in Great Britain or Canada or to any Eastern port must be packed in the type of case described above as "citrus," which is generally known as the Californian citrus case. Exports of citrus fruits to these destinations, the Minister explained, are usually packed in this type of case, but other types, which are very unfavorably commented upon by overseas importers, are occasionally used.

Previously, the Minister added, the minimum juice content of Oranges allowed exportation was 15 per cent. by weight of the fruit. This has now been increased to 25 per cent., which should remove any source of complaint with regard to dry Oranges.

A further provision requires that Oranges shall be sweated for a period of at least seven days prior to packing with a view to rendering the fruit less liable to deterioration during transit to overseas destinations. This period of sweating will also enable packers to detect any development of mould due to bruising of the skin at time of picking.

With regard to Apples and Pears, a levy of 3d. per case will be collected on all exports, on behalf of the industry, mainly for the purpose of advertising those fruits overseas. This advertising will be carried out in conjunction with the successful publicity campaign which is being carried out in the United Kingdom under the direction of Mr. A. E. Hyland. The products under the scheme include Currants, Sultanas, Lexias, butter, cheese, canned fruits, Apples and honey. The campaign has assisted in providing an assured market for a greater measure of these products throughout the United Kingdom.

NEW ZEALAND APPLE AND PEAR EXPORT.

Government Guarantees Continued.

The New Zealand Government is continuing the guarantee on Apples and Pears exported to overseas markets during the present season, but owing to the financial stringency, exporters have been asked to bear a proportion of the risks. A scheme has now been adopted whereby a levy of 1½d. per case is made on varieties accepted for export.

These are divided into two classes, the first carrying a guarantee of 11/- per case for the extra fancy and fancy grades, and the second a 7/- per case guarantee, for the extra fancy, fancy and good grades.

The total levy collections will be paid into a fund, the proceeds of which will stand first call on possible losses during the season. The New Zealand Government undertakes to stand behind the whole export, and if the calls exceed the total of the insurance fund, the difference is to be made up from consolidated revenue.

The estimated receipts from the current levy are £7,800 per annum, and given a fair run of good fortune, the fruitgrowing industry should, in a few years, have at its back a comforting reserve, which, though specifically allocated to one purpose, will create a general feeling of confidence and self respect and add to the prestige of the industry.

The whole guarantee is only applicable to fruit shipped on or before May 25, 1932.

Answers to Queries.

Apple Trees.—A Tasmanian grower writes:—I have about 50 Apple trees which were damaged by wet conditions during last winter. Some of them are quite dead, but others, although the spurs have died, are making growth along the main limbs. Do you consider the latter are worth keeping; and, if so, should any special treatment be applied?

Answer.—Any trees making sufficient growth are worth saving, but in cases where only a portion of the tree is living the proposition is a doubtful one. Every care should be taken with cultivation to ensure that the trees do not suffer from drought conditions. Strict attention to drainage is also essential, as water-logged conditions during the coming winter will probably result in the killing of the newly-grown roots. Prune off all dead spurs as soon as possible.—Fruit Division, in "Tas. Journal of Agriculture."

Spotted Wilt on Tomatoes.—"Tasmania" writes:—A number of my Tomato plants, which were growing vigorously, have been attacked by a disease first appearing as bronze-colored spots on the younger leaves. The plants ceased to grow, and eventually the affected leaves withered. So far none of the plants have died right off. Can you suggest a remedy?

Answer (by Fruit Division in "Tas. Journal of Agriculture).—From your description it seems certain that the trouble is spotted wilt. Once a plant has been attacked by this disease there is no known remedy. The affected plants should be pulled out and burnt.

This is one of the virus diseases which is carried by insects such as thrips and green fly. Control of insect pests by spraying with black leaf 40, or dusting with nicotine dusts, will help to prevent the spread of the disease.

Thrips Investigation League.

MOVEMENT SUCCESSFULLY LAUNCHED IN VICTORIA.

Objective £1,200 per annum for Three Years.

£400 Subscribed to Date, More Contributions to Follow.

AT A PUBLIC MEETING convened by the Victorian Fruit Marketing Association the Thrips Investigation League was launched. Mr. J. W. Bailey presided. There were present fruitgrowers, exporters, representatives of shipping companies, manufacturers of implements, sprays, boxes, etc. Dr. Rivett (Council for Scientific and Industrial Research) outlined a three-year programme for effective research into the thrips pest, working in conjunction with the Waite Research Institute, Adelaide, and the Departments of Agriculture in the several States.

Dr. Davidson, Entomologist, Waite Institute, gave detailed information regarding the thrips pest and the necessity for intensive study.

Mr. J. M. Ward (Superintendent of Horticulture, Vic.) said that thrips had caused damage to the extent of £500,000 last season; instead of exporting a million cases of Apples and Pears from Victoria, the quantity would be under 250,000 cases. Had the additional 750,000 cases been sent there would have been an additional payment of a £131,000 in freight alone. The railways also lost £13,000 on this reduced export haulage, which was quite apart from the lost revenue in regard to local and interstate trade. In a previous bad thrips year Victoria imported 266,000 cases of Apples from West Australia and Tasmania at 7/- a case. This represented £93,000 paid for Apples for local markets.

Stevadores, nail manufacturers, casemakers, implement-makers, and all connected with the industry suffered from the crop losses. Had Victoria exported the anticipated quantity an additional £375,000 would have been received into the State from overseas (apart from exchange).

Letters and telegrams from various parts of Victoria, and from all of the other States were read. On the motion of Messrs. Colombie and Brown, it was decided to form the Thrips Investigation League. A committee consisting of Messrs. Bailey, Allan (National Rose Society), Parnham, Mills, Colombie, Brown, Harrison, with Mr. R. E. Boardman as Honorary Secretary, was elected.

Contributions to date are as follows (the majority being per annum for three years):—

New South Wales Fruitgrowers' Association, £100; Victorian Fruit Marketing Association, £50; H. G. Colombie, £25; Gippsland Fruit Marketing Association, £10; Parnham Pty. Ltd., £10; C. H. Tutton Pty. Ltd., £10; Gerrard Wire Tying Company, £10; F. Cave Pty. Ltd., £10; I.F.M. Company, £10; J. B. Mills & Co., £10; Narre Warren Cool Store, £8; J. W. Bailey, £2; N. N. McLean Pty. Ltd., £5; John Sanderson & Co., £10; Mason, Firth & McCutcheon, £21; James Allen (National Rose Society), £5; F. R. Mellow, £10; Nitrogen Fertilisers Co., £10; Melbourne City Council, £25; H. Jones & Co. Ltd., Hobart, £5/5/-; Somerville Fruitgrowers, £3/5/-; John Sharp & Sons, £1/1/-; Australian Fruit Cannery Association, £50.

Additional contributions to the funds of the Thrips Investigation League will be welcomed.

Send donations to—

R. E. Boardman, Hon. Sec.,
Box 1944, G.P.O.,
Melbourne.

THRIPS INVESTIGATION.

Three-year Programme Outlined.

Dr. A. C. D. Rivett, Chief Executive Officer, Council for Scientific and Industrial Research, presented a three-years' thrips research programme at the recent public meeting convened by the Victorian Fruit Marketing Association.

A summary is as follows:—

THE PROPOSAL UNDER CONSIDERATION is that the Council for Scientific and Industrial Research should be asked to conduct experimental work designed to afford a solution of the thrips problem in horticulture. In this work the Council will co-operate intimately with the Waite Agricultural Research Institute of the University of Adelaide and the Departments of Agriculture of Victoria and South Australia. Contracts will also be established with the Departments in other Apple-producing States.

The C.S.I.R. will ask the Waite Institute to permit Dr. J. Davidson to take charge of the investigation. He will have under him Mr. J. W. Evans, of the Council's own staff. The salaries of these workers will be borne by the respective organisations named. In addition to these and other facilities provided by these two organisations, it is anticipated that the State Departments of Victoria and South Australia will, with their customary generosity, assist the investigation as far as lies in their power without charge, except where they may be called upon to incur special expenditure. It will, however, be necessary to incur other liabilities which, in present circumstances, cannot be met from the funds of the Council. These will be reduced to a minimum, but it is estimated that a sum of £1,200 will be required to ensure satisfactory progress of the work. While it is impossible to state an exact time during which investigations will be necessary, it is estimated and hoped that three years should suffice. The total sum required is, therefore, £3,600.

Tentative Outline of Investigations.—In order that the general meeting may have some idea of the lines along which it is proposed to work, the following tentative scheme is submitted. It must be understood that this is subject to modification as the work develops.

The problem must be tackled in very systematic fashion if control relief measures are to be developed within a reasonable time. The most immediate problem is to determine by carefully controlled laboratory experiments some fundamental facts regarding the activity and behavior of thrips in relation to environmental factors.

Concurrently with such laboratory experiments, field observations should be made in selected orchards covering systematic counts of thrips population in Apple blossom buds throughout the season and a survey of the vegetation affording breeding grounds for thrips in and around such orchards. These observations should show the relation of weather and vegetation to thrips abundance and the relation of thrips abundance to the variety of Apples and to the setting of the fruit.

Finally, as the laboratory and field work progress and supply data for possible methods of control, it will be necessary to carry out experiments for control by spraying, use of repellents, etc. Even from the outset it may

be found desirable to conduct some empirical trials with sprays and repellents.

Putting this into more systematic form, the tentative programme would run more or less as follows:—

I. Laboratory Experiments.

(To be conducted by Messrs. Davidson and Evans.)

A detailed knowledge of the species of thrips concerned (a certain amount of preliminary work on these lines has been carried out already and useful data obtained).

(a) Activity and behavior of various stages in the life history in relation to temperature and humidity.

(b) Behavior of pupal stages in the soil in relation to soil temperature and soil moisture.

(c) Soil conditions affecting

(1) Viability of pupal stage in soil.

(2) Emergence of adults from pupae.

(d) Relation of (b) and (c) to time of emergence and numbers in spring emergence of the insect from the soil.

(e) Relation of (d) to prediction of potential plague outbreaks of the thrips.

II. Nature of Damage by Thrips to Apple Blossom.

(Messrs. Davidson and Evans.)

A study of the damage to Apple blossom buds at various stages (different varieties) to attacks by thrips—reaction to feeding marks caused by the insect—effect on setting of fruit—damage caused to Apples after fruit has set.

III. Field Observations.

(Conducted by Assistant Entomologist.)

A. Systematic counts of thrips population in Apple blossom buds (different varieties) throughout the season on trees in selected orchards.

For this purpose suitable orchards may be selected in South Australia near Adelaide, and in Victoria near Melbourne.

If possible later similar data may be obtained from Western Australia.

Observations to be systematically carried out with a view to statistical examination of the data.

Survey of the areas in and around the selected orchards with reference to vegetation affording breeding areas for the thrips.

With the data obtained the following relationships may be examined:—

(a) Weather and thrips abundance in Apples.

(b) Surrounding vegetation and thrips abundance.

(c) Thrips abundance in relation to variety of Apples.

B. In relation to the above observations on the relative setting of fruit on the trees to be recorded.

Note.—Co-operation with a horticultural expert on Apples in these matters will be desirable. Doubtless an officer will be available from the Department of Agriculture.

IV. Possibility of Spraying as a Check Against Thrips Attacks.

(The nature and extent of the work depends largely on the results of investigations under sections I. and II. Work to be conducted by Mr. Evans and Assistant Entomologist.)

At present this is the only method which appears promising. Other methods may emerge as our knowledge under sections II. and III. is increased.

(a) Preliminary tests will be made with suitable substances as sprays, to repel the thrips from Apple blossom buds during the critical stage.

(b) This to be followed by systematic spraying experiments in selected orchards in Victoria and South Australia with substances selected from tests made under (a).

Staff.—In order to carry out investigations on such lines as these, it would be necessary to appoint a junior entomologist to assist Dr. Davidson and Mr. Evans.

The advice and assistance of a chemist will be necessary in section IV. of the programme. Professor Prescott, of the Waite Institute, has kindly agreed to make the part-time services of a member of his staff available for this work in its early stages.

In the observational work in orchards, co-operation should be developed with the horticultural branches of the State Departments of Agriculture.

Estimated Expenditure.—The main expenditure in the investigation will be required for the salary of a junior entomologist and, at a later stage, probably of a chemist. Certain essential apparatus for the laboratory investigations will have to be obtained, the main items being a set of soil temperature tanks for controlled experiments on survival of thrips under varying soil temperatures, a large incubator and some spraying equipment. Traveling expenses may be heavy and it will be necessary to provide a certain sum for casual or seasonal labor. Maintenance and materials also must be taken into account. While at the present stage it is not possible to give completely detailed estimates, it may be taken for granted that £1,200 per annum will be the maximum sum required.

THRIPS CONTROL.

Spraying Programme Successful.

Growers at Mandurang, near Bendigo, Victoria, who sprayed frequently in the blossoming stage have a 70 per cent. crop of Jonathans, and a 50 per cent. crop of Cleos. Trees were sprayed five times with nicotine sulphate during the blossoming stage. In the same district trees not sprayed with nicotine sulphate have a very poor crop.

DAMAGE BY THRIPS.

Relief Sought for Orchardists.

Mr. W. H. Everard, M.L.A., recently discussed with members of the Eltham Shire Council the effort being made to secure relief for fruitgrowers who have suffered from the thrips pest. Mr. Everard said that it was unlikely that the State could afford assistance. Councillor Ryan urged that the Government make money available for the fruitgrowers to tide them over the difficult period. It was decided to ask Mr. Everard to approach the Acting Premier and the Prime Minister to see what could be done to obtain a grant for the relief of fruitgrowers.

BERRY FRUITS.

Successful Storage Methods.

Mr. G. B. Tindale, B.Ag.Sc., Cold Storage Research Officer of the Victorian Department of Agriculture, has demonstrated that berry fruits can be successfully cold-stored for commercial purposes. The berries are placed in a barrel in alternate layers with sugar, using $\frac{1}{2}$ of a pound of sugar for every pound of berries. Stored at a temperature of 25 degrees Fahr., the berries can be kept without loss of flavor for 12 months.

The method is similar to that successfully adopted in United States.

Water Blister of Pineapples.

Soft Rot Caused by *Thielaviopsis paradoxa*.

Control by Careful Handling, Transport at Low Temperature, and Use of Benzoic or Salicylic Acid.

SOFT ROT OF PINEAPPLES, known in southern markets as water blister, causes an annual loss estimated at £10,000. Investigations under the auspices of the Council for Scientific and Industrial Research were conducted by Dr. Dickson, Dr. Angell (of the C.S.I.R.), and Mr. J. H. Simmonds, M.Sc., Plant Pathologist, Queensland Department of Agriculture. According to counts in the Sydney markets, infection through the cut stems caused 75 per cent. of the total loss, and infection through the fruit 25 per cent. The Committee of Direction of Fruit Marketing ably assisted in the investigations.

During the summer months Pineapples consigned from Queensland apparently in excellent condition may arrive at the Sydney or Melbourne market more or less rotted (see plate 2, figs. 1, 2, 3), the juice of the fruit oozing out of them and dripping copiously from the crates.

The greater part of the crop is marketed during the

the stem and minute amounts enter the core of the fruit, but none has been found in the edible portion.

Benzoic acid may be used on fruit intended for sale in the markets of New South Wales, but the use of borax, boric acid, or salicylic acid is not viewed with favor by the Health Department.

For commercial application, an alcoholic solution of benzoic acid of not less than 10 per cent. strength, or a mixture of one part acid with not more than four parts of kaolin is recommended.

Transportation and storage of fruit at low temperatures is also suggested as a means of control.

General satisfaction has been expressed because of the success of these investigations.



Fig. 1.—Growth of *Thielaviopsis paradoxa* on the outside of Pineapple.

months of February, March, and April, as the prices on the Melbourne and Sydney markets are higher than the cannery prices. However, during these months the greatest loss occurs through water blister.

Experiments were made in treating the stems with various chemicals. Good results were obtained by benzoic acid. Experimental consignments involving the use of benzoic acid rubbed on the cut stems of 164 Pineapples, were made in April and May, 1930, and February and March, 1931: 181 fruit similarly inoculated with the conidia of *T. paradoxa* served as controls. Without exception the latter were diseased.

Of the 164 Pineapples the cut stems of which were rubbed with benzoic acid, 18 became affected directly through the fruit, but none through the stem.

Tests prove that infection through the stem may be almost altogether prevented by the application of borax, boric acid, or calcium hypochlorite, through the cut surface of the stem within not more than five hours of cutting the fruit. Salicylic acid and benzoic acids are much more efficient in this effect; both go into the solution in



Fig. 2.—Long section of diseased Pineapple showing (a) final stage of rot and growth of fungus in lower part. (b) Advance of rot between A and B.

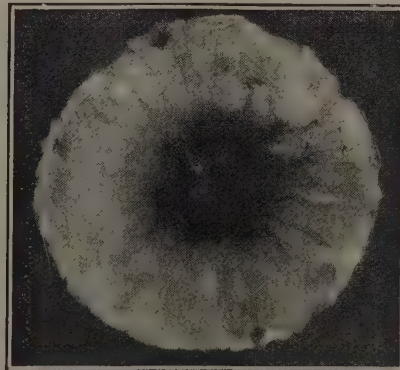


Fig. 3.—Cross section of diseased Pineapple showing black growth of fungus in and surrounding the core.

(Illustrations by courtesy of the Journal of the Council for Scientific and Industrial Research.)

Tasmanian Orchard Competition.

Following the District Orchard Competition which was inaugurated last year by the Franklin Agricultural Bureau, the scheme was extended this season amongst the bureaux established in Southern Tasmania.

Each district competing was requested to judge the orchards entered and particulars in respect to each selected were forwarded to the Chief Horticulturist (Mr. P. H. Thomas) for final adjudication.

Careful inspections have now been made of each area, and points awarded on the scale adopted by the Bureau, the results being:—

	Freedom from Black Spot.	Freedom from Codlin Moth.	Freedom from Red Spider.	Freedom from Mildew.	Freedom from Woolly Aphis.	Freedom from Spray Injury.	Production of Fruit.	Appearance of Fruit.	Cultivation.	General— Diseased trees, blank spaces.	Total.
Frankcombe, T. A., (Ranelagh) (Dorothy Orchard)	10	10	10	10	7	9	10	10	10	8	94
Thiessen, H. A., (Geeveston)	7	10	9	10	8	9	10	9	10	7	89
Connor, H. (Cygnet)	8	10	7	8	8	9	10	9	10	8	87
Thorp, H. D. (Franklin)	8	10	10	8	7	8	10	8	10	7	86
Calvert, D. F. (Glen Huon)	10	10	10	8	6	7	10	10	10	5	86
Turner, K. (Cradoc)	9	10	6	10	7	7	9	8	10	7	83
Donohue, F. (Lymington)	7	10	9	8	8	9	9	8	8	5	81
Schmidt, W. H. (Mountain River)	9	10	8	7	5	7	10	9	9	6	80

Commenting upon the different areas, Mr. Thomas stated that the outstanding features of the competition were the entire absence of codlin moth and the wonderful standard of culture that had been maintained throughout the orchards.

With the differing climatic conditions, soil and rainfall experienced in the districts, the varying ages of the orchards, and question of varieties, it is evident that, judging presents a rather difficult problem.

The successful competitor (Mr. T. A. Frankcombe's) area comprised the varieties Jonathan, Cleopatra, and Sturmer, and, viewed as a whole, can only be regarded as a model of neatness, symmetrically trained trees and efficient pest control.

Mr. H. A. Thiessen's orchard at Geeveston is known throughout the Huon as the "wonder orchard," some of the heaviest yields per acre being harvested from this particular area, whilst Mr. H. Connor, not being favored with such congenial conditions of soil and shelter, has attained results with a large number of the principal export kinds which are eminently satisfactory.

As, has been stated, the scale of points had been adopted by the Bureau and a perusal of the figures awarded will show that competitors lost the majority of their marks in the "Freedom from red spider," "woolly aphid," and "general" sections, the latter providing also for (freedom from diseased trees, blank spaces, growth of trees, etc.).

It is pleasing to know, stated Mr. Thomas, that one of the orchards competing, only a few years ago, when I first visited the district, was very much neglected and doubts were expressed as to whether it would respond to treatment.

The present owner, Mr. F. Donohue, certainly deserves every credit in the results attained in his renovation treatment in that the particular area to-day is worthy to compete with some of the best orchards of the State.

TASMANIA.

State Fruit Advisory Board.

May Go Out of Existence if Not Given Statutory Powers.

A MEETING of the State Fruit Advisory Board was held at Hobart on February 11. There were present Messrs. B. J. Pearsall (Chairman), M. Calvert, B. H. Saunders, A. H. Weedon, F. W. Harrison, O. J. Morrisby, P. H. Thomas, W. H. Calvert, J. H. Astell, and A. J. Honey (Secretary).

A Committee was appointed to go into the possibilities of securing a reduction of freight. Owing to financial limitations, it was decided not to have an exhibit at the Sydney Easter Show.

A resolution was submitted by Mr. Saunders disagreeing with the levy of three-eighths of a penny for advertising, as decided by the Australian Apple and Pear Export Council, but after discussion the motion was lost.

Fruit Shipments via Melbourne.

The following resolution, moved by Mr. Astell, was agreed to:—

"That, owing to the geographical position of the Mersey Valley and other North-West coastal districts, being some 200 miles from the Hobart shipping port, this board is of opinion that growers in that district should be permitted to ship overseas from Melbourne if they so desire, and that this resolution be forwarded to the Apple and Pear Council."

Damage by Blackbirds.

The Minister for Agriculture (Sir Walter Lee) advised, in response to the Board's request for a reward for the

(Continued on page 146)

The Export of Australian Apples.

Suggested Improvements of Present Methods.

(By W. M. Carne, Senior Plant Pathologist, Council for Scientific and Industrial Research.)

BEFORE Mr. Carne joined the C.S.I.R. as Plant Pathologist, he was on the staff of the Western Australian Department of Agriculture. He has closely studied problems connected with the export fruit trade. Early in 1931, as the result of a grant by the Empire Marketing Board, he visited Great Britain and was thus enabled to study the marketing of the fruit which he had seen developing from the blossom stage in the orchards. On his return he has co-operated with the Departments of Agriculture in the several States, and with growers regarding possible improvements in the export trade.

The article herewith, republished from the journal of the Council for Scientific and Industrial Research, is issued to form the basis of discussion, and should not be construed as a final statement of the position.

I. Introduction.

AUSTRALIA GROWS VERY EXCELLENT export Apples. In 1931, as in other years, there were no better Apples on the London markets from April to July, than some from Australia, yet in 1931, as in other years, there were no worse Apples on the same markets than some from Australia. The Australian fruit competes with Apples from New Zealand and the United States, and to a lesser extent with those from South Africa and Chili.

New Zealand Apples are of the same season and of the same varieties as Australian. They have a high reputation for condition,* quality,* and pack; their grading is effective and the grades very uniform; and the range of prices between the highest and the lowest is relatively small. They secure the cream of the market during the season. United States Apples have a high reputation for condition, in spite of the fact that they have been held in cool store months longer than those from Australia and New Zealand. That fact operates against their quality, especially their freshness. Their grading is excellent and the pack extremely good. Their good condition, despite their long storage, is connected with the fact that they are selected from long-keeping winter varieties. Apples from the Southern Hemisphere are of early to late mid-season varieties for the most part, and have shorter storage lives.

South African Apples are of varieties common in Australia. Though initially inferior to Australian in quality, they arrive on the markets in better average condition. Chilean Apples are also inferior in quality to Australian, but they reach the English markets in good average condition.

The outstanding characteristics of Australian Apples on the overseas markets are variability and unreliability. Their condition ranges from very bad to very good, their quality from fair to excellent. Their grading does not result in their being a relation between the grades and the prices received on the same market, i.e., fruit in the top grade often does not obtain as high a price as that in a lower grade. Two types of boxes are used, and these vary considerably in quality and suitability. The packing is also variable and ranges from loose packs of badly sized fruit to packs that are in every way satisfactory. The prices received are also variable, and show a range between highest and lowest much greater than those received by competing countries. These facts have set up a reputation which reacts unfavorably on good fruit.

It is perhaps incorrect to speak of the reputation of "Australian" Apples. Those from the different exporting States differ so much in average condition and quality,

*For a definition of these terms, see section 3, The Correct time for picking for export.

in varieties, and general characteristics, that the fruit trade in Great Britain and on the Continent recognises definite, though unformulated and unofficial, State standards. It is accustomed to say that one State is above or another below its usual standard in any particular season.

Other defects in the exporting of Australian Apples include a multiplicity of brands and marks, an extraordinary number of varieties, far too many small lines, and a lack of a central body set up by the industry and having the power to place shipments in store during temporary gluts, to divert shipments to more favorable markets, and generally to see that the fruit is marketed in the best possible way. The consequences of this lack are irregularly supplied markets, and shortages followed by gluts, during which, besides the resultant poor prices, fruit is necessarily delayed in distribution and deteriorates in consequence.

The growing criticism of Australian Apples in recent years is the result, not of their deterioration, but of their condition, packing, etc., not having kept up with the improvement of the fruit from competing countries. Fruit is judged by comparison. New Zealand Apples have a reputation much superior to that of those from Australia and average definitely higher prices. It is a useful sidelight on these facts that retail shopkeepers in London rarely label Apples "Australian," though "New Zealand" is often seen. Yet both countries distribute appropriate window tickets to retailers.

2. Causes of the Present Conditions of the Export Trade.

The reasons for the lack of standardisation and the unreliability of Australian Apples may be discussed under the following headings:—

- (i) The present export regulations and their application.
- (ii) Inadequate organisation in the industry for the better handling, shipment, and marketing of its fruit.
- (iii) Lack of appreciation of the importance of details when marketing fruit overseas.

(i) **Export Regulations.**—Of the regulations in so far as they affect grading, the difficulty, as already mentioned, is to design a set of grading rules that will result in Apples graded in Australia maintaining their grades when marketed some weeks later in Great Britain. No system of grading will absolutely control condition on the overseas markets because of the varying conditions to which fruit is subjected at sea and after unloading. This makes it all the more important that the condition of the fruit when shipped should be good, especially in the higher grades.

(ii) **Organisation in the Industry.**—Inadequate organisation in the industry is responsible for many defects which are more or less successfully avoided or overcome by the highly organised competing industries of South Africa, New Zealand, and United States of America. Marked im-

provement in ships' stowage and refrigeration; handling and marketing overseas; pre-cooling; and to some extent improvement in handling between orchard and ship's side in Australia will come only when the industry decides to organise more effectively for improvement. The best results are likely only when the industry retains control of its product up to the first sale overseas. There is no doubt whatever that the success of our competitors must be largely traced to organisation. Better organisation in the marketing of Australian Apples would be welcomed in New Zealand and South Africa, as the present conditions in the Australian export trade react unfavorably on their marketing as well as on ours.

(iii) **Market Requirements.**—Carelessness and/or ignorance of details is more the concern of individuals (growers, pickers, packers, etc.), and it is to them that this article is particularly addressed. They determine largely the condition, quality, and pack of the fruit before it is shipped. The remedy of defects in these matters lies in their hands through the improvement of present practices of picking, grading, sizing, packing, and labelling.

3. The Correct Time of Picking for Export.

Correct picking is essential for both condition and quality. Condition may be defined as freedom from defects which bring about deterioration.

Quality refers mainly to those features which appeal to the eye, and to a lesser extent, to the taste. In practice, grading for quality concerns appearance, as there is a general agreement as to what makes an Apple attractive. On other points, buyers' opinions differ considerably. To be specific, good condition implies good maturity, and freedom from water core, mouldy core, severe hollow core, internal injuries from insects (such as codlin moth), bruises or unhealed surface cuts or scratches, or anything else liable to cause deterioration. Good quality implies good shape and color for the variety, a bright clean skin indicating freshness, and freedom from disfiguring markings such as healed scratches, insect injuries, scab spots, bitter pit spots, excessive russetting, etc.

Two things are to be specially avoided in picking, namely, picking too soon and picking too late. The former results in complaints of immaturity and poor color overseas, the greens being too green instead of yellow-green, and the reds deficient in amount and drab instead of bright and fresh. Further, susceptible varieties are almost certain to develop bitter pit, unless too immature even for pitting.

Picking too late results in complaints overseas of over-ripeness, breakdown and rots. Over-ripeness, though resulting in a loss of flavor and the development of mealiness in the flesh, is important mainly because of its relation to waste. Ripe fruit is soft and bruises readily under the prevailing handling conditions. Fungal rots rapidly follow. Further, ripe Apples are subject to eye-spot rots, and fruit that is too nearly ripe when picked is very likely to be over-ripe on the markets if the temperatures in the ships' holds are on the high side, or if the sea voyage is protracted, or if the market distribution is slow. Apples of the softer varieties, particularly Jonathan and Cox's Orange Pippin, are very subject to late or maturity water core as they approach ripeness. If an affected Apple is cut in half transversely, the water core will be seen as radiating translucent spots or streaks in the flesh.

If the fruit is cut in half longitudinally, the water core appears as bands in the flesh increasing in width towards the calyx end. This type of water core is not typically found in the core tissues, but sometimes a transitional form between the true water core formed in immature Apples and the radial form of maturing fruit occurs.

This maturity form of water core does not show external evidence of its presence and is usually overlooked. The eating quality is not appreciably affected in fresh fruit, and if stored not too long and in efficient cool stores and distributed rapidly after removal, affected fruit keeps sufficiently well.

With long storage

or in temperatures not sufficiently low, affected fruits develop that brown collapse of the tissues called "breakdown," which is one of the principal causes of the reputation for not keeping earned by these varieties. Numerous instances of water core breakdown were seen overseas in 1931 which attracted much adverse criticism especially in Jonathans. It was not uncommon for fruit to land in apparently good to excellent condition and then rapidly to collapse with breakdown. With few exceptions, water core could be detected in the collapsed fruit, which is proof that it was in an unsound condition when shipped. There is no doubt that the shipping of fruit with water core in 1931 was one of the principal causes of the complaints of non-keeping in Australian Apples that season.

The best

practical guide to picking

is the ground color of the fruit. Whatever shade of green an Apple has when fully immature, the green is replaced by yellow or cream as it ripens, so that when it is tree ripe the green has entirely disappeared. The proportion of green to yellow provides quite an effective guide to maturity when used intelligently.

Varieties with a high susceptibility to bitter pit but not to water core and hence not to breakdown, such as Cleopatras, should not be picked until there is distinct evidence of yellow in the green, that is, until they are green-yellow.

Jonathan, Cox's, Gravenstein and other quick-maturing varieties subject to both bitter pit and water core breakdown should be picked mainly on the basis of avoiding water core, as breakdown is a more serious defect than bitter pit. As picking time approaches, a few of the larger and more exposed fruits should be cut and examined daily. These are the first to develop water core. Picking of the main crop should be completed before or as soon as the first evidence of water core is found. With heavy crops of these varieties, it will generally be found possible to leave the fruit until the ground color is green-yellow, thus avoiding severe pitting, poor coloring, and breakdown.

In light crops, water core appears earlier, and the best picking stage is usually when the first faint signs of yellow appear in the green. Such fruit is certain to develop some bitter pit and to be poorly colored and immature on the overseas markets. Fruit from light crops of these varieties cannot be exported without developing pit or breakdown or both. Apples of these varieties over 2½-inch diameter are dangerous from half crops, whilst those from still smaller crops should never be exported. Varieties like Granny Smith and French Crab, which are preferred green by the trade and which have a relatively low susceptibility to bitter pit, should be picked after the first change from the full green of very immature fruit can be detected.

Varieties of good keeping reputation should be picked after the first distinct evidence of yellow is visible in the green or after the ground color is green-yellow, according to whether their susceptibility to bitter pit is low or high.

Varieties subject to true or common water core, such as Stone Pippin, Rome Beauty, Rokewood, Democrat, Granny Smith, and Dunn's, should be picked somewhat later than usual when the trouble is plentiful, as it tends to disappear while the fruit is on the tree. Even when

affected, these varieties keep fairly well when exported. However, such fruit is not sound and good, and if delays in selling occur in the markets, it may develop breakdown. This occurred severely in the varieties Rome Beauty, Rokewood, and Democrat in 1931.

4. Grading for Export Conditions.

GOOD GRADING IS ESSENTIAL for the development of a good reputation in marketing. It should not be confused with mere sizing, for it cannot be done mechanically.

The fruit should be divided into two or three export grades, into local market fruit, and into culls. The culls should include bruised and freshly injured fruits and those with rots, very small and badly mis-shapen fruits, and fruit badly marked, scabbed, or with codlin moth, etc.

The local market fruit should include fruit with water core (the Jonathan type always, and the ordinary type when bad), fruit which is very immature or too mature for export, and over-sized fruit. By over-sized is meant generally 3-inch diameter or more in dessert varieties and over 3½-inch in culinary varieties. In the quick-maturing varieties like Jonathan and Cox's Orange Pippin, 2½-inch fruit should not be exported unless quite firm and positively free from water core. Two to 2½-inch fruits of these varieties are preferred overseas and carry much better.

The "plain" export grade should include fruit which is somewhat immature or even slightly overmature; fruit of hard varieties like Rokewood, Democrat, Rome Beauty, etc., when affected with ordinary water core but not severely; and "bull" Apples of varieties like London Pippin and Cleopatra owing to their liability to "hollow core." (Should these varieties be from light crops the general presence of "hollow core" would justify the main crop being graded "plain" and the "bulls" discarded as they are liable to develop "mouldy core.") The export regulations require that 2-inch fruit, except of naturally small varieties, shall be placed in this grade. Oversized fruit if exported should be graded "plain" as it is apt to carry badly and be defective in condition when marketed. The regulations specify the maximum allowable surface markings.

The regulations require that fruit in the "standard" grade shall be sound. This means that the fruit shall be sufficiently mature to avoid pitting in susceptible varieties, but not soft or over-ripe, and that it shall be free from water core (both forms), mouldy core, severe hollow core, rots, bruises, unhealed injuries, and internal insect injury. Though not laid down by regulation, growers are advised to separate this fruit into well colored and poorly colored, and to pack these separately. The regulations specify the maximum amount of allowable blemish.

If "special" grade is used, it should be made up of well-colored clean fruit from the standard grade. In this case, the balance of the fruit remaining in the standard grade should be mixed and classed as standard (i.e., not separated into two classes based on color as recommended in the paragraph immediately above). If this were done, the resultant proportionate increase of the content of blemished fruit in the standard grade would be offset somewhat by the better average color. Such a pack, however, is a mixed one.

It is suggested, therefore, that no "special" grade be used and that only "standard" be packed, but that there be two sub-grades within the "standard"—a better and a poorer colored one. In the usual season, one or other will predominate.

If the quantity of poor colored fruit is small, it should be placed in the "plain" grade. It should be remembered that the object is not more cases of "standard" fruit, but more standardised fruit.

5. Sizing.

Sizing is very important as it is the foundation of a good pack and a fair deal with the buyer. Possible temporary gains by incorrect sizing should not be sought at the price of damage to the reputation of the industry as a whole as well as of the individual. Fruit should be sized to ½ inch sizes and care should be taken to see that the sizing plant is clean and that it does not damage fruit.

6. Packing.

Good packing ensures a good appearance, good weight, and the maximum freedom from bruising in handling. It is surprising how little we know about packing in relation to the condition of fruit overseas, and investigations are needed to determine the best type of box and how best to pack it. Pending these, the following suggestions based upon experience in other countries and observations by the writer are offered.

1. Use the type of box most common in your State. This helps for good stowage in road and rail vehicles and in ships' holds. Remember no one knows yet what is the best case to use. The hardwood case carries fruit as well as the softwood case in use in Australia.

2. Use a well-made case of correct dimensions. This aids packing and appearance and ensures good weight.

3. Use a standard pack. Keep to that determined by the first layer in each box. Do not vary the pack in a box if it is coming too high or too low. Either a different pack is needed or the correct height should be attained by packing the fruit on its shortest or longest diameter.

4. Press firmly but gently on each layer when completed. Pack firmly by pulling the fruit forward as each is placed in position. If this is not done, some layers will be several fruits short and slack packing result.

5. If a hardwood dump case is used, bring the pack just above the surface so that the lid when nailed on shows little or no bulge. If a softwood case of the Canadian type is used, take care to avoid an excessive bulge. The value of the bulge has been exaggerated and as used is a prolific source of bruising. Though not specified in the export regulations, the use of end cleats is essential in this type of box, preferably at both ends of the tops and bottoms. These cleats should be at least ¾ inch thick. If only top cleats are used, they should be at least ½ inch thick. In packing, a bulge not exceeding the cleats in height should be sought. The common use of bulges ¾ inch to 1½ inches in height protected by cleats about ¾ inch thick means not only bruising when the lid is nailed on, but more important, bruising later on. Such cases cannot be stacked in trucks, ships' slings or holds without pressure being applied to the bulge. Pressure should be taken by the cleats and ends, and not by the bulged tops and bottoms. Such cases invariably open up with bad bruises on the fruit beneath the bulge.

6. Use woodwool between the fruit and the tops and bottoms or preferably the corrugated cardboard which surround the fruit except at the ends of the boxes. These serve to reduce bruising, but they cannot be relied upon to make up for slack or overtight packing or excessive bulging.

7. Brands, Labels, Etc.

Attractive labels, easily read and properly stuck on are best, especially on hardwood boxes. Stencilling, if used, should be distinct and clean. Brands and printed labels are inadvisable except for long lines. Short lines should not be exported, for wholesale buyers do not want them. A minimum consignment of any variety, say 20 or 50, should be decided on and adhered to. Imagine the work of sorting out hundreds of brands and marks in a shipload, each with several varieties, and the difficulties of buying, selling, and bookkeeping. If there is a district packing shed, use it. Remember your name or brand is only one

of thousands going from Australia. Get your fruit under a brand associated with long lines of standardised fruit wrapped in printed labels. If there is no district packing shed, get your neighbors together and start one. Aim at a brand which buyers will ask for, and retailers advertise; but you must have the quantity to meet the demand. Fewer packing sheds mean longer lines of fruit, more standardisation, lower costs for handling and marketing overseas, and a better reputation for Australian fruit.

8. Conclusion.

The advice given above, if followed by those who have neglected the points raised, will help to improve the reputation of Australian Apples in the coming season. Especially are growers warned against exporting the earlier and softer varieties, such as Jonathan and Cox's Orange Pippin, when affected with water core, or in large sizes. This advice applies particularly where the crops of these varieties are light, for the large sizes from such crops will be soft, will bruise readily and develop rots, and will most inevitably develop water core with breakdown as a consequence. The attention of growers in the areas affected by thrips is particularly drawn to this point.

Grade fairly, size accurately, and avoid slack or over-tight packs. Especially avoid unprotected bulging of the tops and bottoms.

Finally, don't hold the earlier quick-maturing varieties after packing. If they cannot go direct to the ship's side for loading, place them in cool store. Otherwise they will arrive on the overseas markets in a more or less ripe condition.—"Journal of the Council for Scientific and Industrial Research."

TASMANIAN STATE FRUIT ADVISORY BOARD.

(Continued from page 142.)

heads of blackbirds, that he would consult the Treasurer on the matter.

Statutory Powers Desired.

A deputation from the Board waited on the Minister for Agriculture and pointed out the representative character of the State Fruit Advisory Board, and urged that statutory powers to secure sufficient finance by way of a levy. Without the necessary finance the Board would go out of existence.

The Minister, in reply, whilst admitting that growers' conferences had endorsed the proposals, said that many growers were against the granting of the desired powers. He had not seen the draft bill, but would consult the Attorney-General (Mr. Baker): but would want to know a lot more about the bill before taking it up.

* * * * *

On resuming after the deputation, Mr. Harrison said that apparently the Board would not get statutory powers, though same had been recommended by the Royal Commission.

Mr. Weedon said the Minister was taking more notice of a noisy minority than of those officially representing the growers. Messrs. Morrisby, M. Calvert, Saunders, W. H. Calvert took part in the discussion, and regret was expressed at the turn of the situation.

After further discussion, Mr. Astell moved:—

"That a copy of the draft bill be sent to the Minister for Agriculture with a covering letter." Hon. W. H. Calvert seconded, and the motion was agreed to.

It was decided to carry on till June. The Chairman (Mr. B. J. Pearsall) in expressing his preparedness to resign with other members, said he was sure growers would find that the Board had done much for them,

THE PORT OF HULL.

London and North-Eastern Railway.

THE EXPORT of Australian fruit overseas has proved a valuable asset, notwithstanding intermittent depression and subsequent slackening of trade. The promoters of the London and North-Eastern Railway, with its naturally designed base, the "Port of Hull," deserve commendation for an enterprise calculated to advance the commercial and horticultural activities of the overseas Dominions.

An observation of the map demonstrates the important geographical position of Hull in relation to Continental trade. Owing to its close relationship with the Continent and the many regular lines of steamers trading to all ports in Northern and Eastern Europe, this port occupies an unrivalled situation for the re-export of the Empire's fruit to Europe. Hull firms specialise in the export trade, keeping in close touch with all the ports in France, Belgium, Holland, Norway, Sweden, Denmark, Germany, Russia, Poland, Esthonia, Latvia, Lithuania and Finland. The advantages of shipping direct to Hull, therefore, are readily apparent. In addition to the large consuming area in Great Britain served by the Port of Hull, many millions of people in Europe are reached in this way. In the area of distribution (chiefly industrial) there are resident 13,000,000 people, who are most economically supplied through Hull. Express trains are provided by the London and North-Eastern Railway to carry the fruit direct from the point of landing and sale to inland destinations. The King George Dock is one of the most modern docks in the Kingdom, and is equipped with electric cranes for the rapid discharge of fruit to quay, railway waggon, transit shed and warehouse. By loading from railways trucks to ship's side great saving in cartage, warehousing and other charges is effected.

Buyers have free access to the dock for the inspection of fruit before and after sale. Public sales are held on Mondays, Wednesdays and Thursdays and at other times as required, and are largely attended by the principal buyers from the industrial centres of England and also from Scotland and parts of Ireland. An idea of the importance of the port and its subsequent facilities of interest to the many supporters and well-wishers of Empire trade can be derived from the following:—It is Britain's third and cheapest port, and is provided with the best possible railway road and water transport. Docks cover a total water area of 250 acres with over thirteen miles of quays and a river frontage of over seven miles. It has regular steamship services with America, India, Australia, East, West and South Africa, the Far East, Baltic and Continental ports. It possesses the most up-to-date jetties for the discharge and distribution of commodities, and 900,000 cubic feet of cold storage space.

Messrs. Burns, Philp & Co. Ltd. are the Australian agents of this national enterprise, which has rendered great service in cementing the ties of British-Australian trade and commerce, and proved a lasting stimulus to the Australian fruit industry. The company's head office, 7 Bridge-street, Sydney, is capably managed and provides every facility for those desirous of securing the services of an efficiently equipped firm of international fruit sale and transit.

Codlin Moth Parasites.—Two different parasites were found attacking codlin larvae at Griffith, N.S.W.

It is hoped that entomologists have these under observation for testing and breeding.

Seasonal Cultural Advice.

Small Fruits ∴ Nut Culture ∴ The Tomato Crop ∴ The Market Garden

Useful Hints from New Zealand.

Small Fruits.

WHERE CURRANTS—black, red, or white—Gooseberries, Raspberries, or Loganberries are to be planted, there should be no delay in locating suitable plants. They should be selected while growing and at leisure, so that there may be no mistakes. Receipt should be taken of them as soon as they are ready to lift, and they should be heeled in carefully if the grower is not ready to plant immediately or if wet weather interrupts the work. The plants are quite safe heeled in, and to work the land when sticky is to do damage that is generally serious for a long time.

These crops are specially suitable for the cooler localities, in the southern latitudes or higher altitudes. Such places have actually an advantage in growing these crops. They all do best on good land, moist, but well-drained and also sheltered. The Gooseberry and Red and White Currants are inclined to be something of an exception; they thrive well on lighter land and in a rather more open situation.

Commercial plantings are usually 6 ft. between the plants both ways—this is, 1,210 per acre. Exceptions are raspberries, which are better planted 1 ft. apart; Black Currants, 3 ft. apart; and Loganberries, 8 ft. apart. These distances are between plants in the rows, the rows themselves being 6 ft. apart as stated. There need be no ceremony about planting; only plant firmly at the right depth. The plants are best pruned later, shortly before they start into growth.

Cut away runners that may be formed on the Strawberry crop, and give shallow cultivation in fine weather to suppress weed-growth.

Nut-culture.

This crop is strangely neglected by growers here. Large supplies of good nuts are obtained from overseas, at reasonable prices it is true: but why send thousands of pounds away annually for a primary product we can grow well? No doubt there is room for some extension in planting if it is carefully done.

Walnuts require good alluvial land to do their best. As a group for shade purposes or an avenue, or rowed out like orchard trees, they do well. The former methods are perhaps most appropriate for the present, as generally only seedling trees are available. When grafted trees of suitable varieties are available in a district, more extended planting will be warranted.

Sweet Chestnuts are an excellent vegetable; they are usually produced abundantly on good hill country. The remarks otherwise made regarding Walnuts apply to these also.

Sweet Almonds for dessert or cooking are popular. Worked trees in different varieties are procurable. In Hawke's Bay they crop well, and would doubtless do so in many other localities. They much resemble the Peach tree, but require less attention. It is necessary to plant different varieties together, so as to pollinate the blossoms and make them fruitful.

Filberts (Barcelona nuts), otherwise known as Hazel or Cob nuts, also merit attention. Small groves that are cropping well in different places in the Dominion supply evidence of the possibility of successful planting. Distinct varieties are available, but they should be chosen with a view to arranging suitable pollination. The many

failures of the past are due to allowing the trees to sucker, and to planting unprofitable seedlings. The trees do well on the poorer class of soils, and are best planted rather close—say, 10 ft. apart in the rows.

Where nut crops are ripening a cloth should be spread and the limbs shaken to make the nuts fall. By lifting the cloth the nuts are thrown on to trays, which are stacked in a dry place to thoroughly dry out. This is most important if rancid nuts are to be avoided. Direct sunlight, if it is very hot, is apt to open Walnuts that are not well sealed, by drying them too quickly. To dry them evenly they should be turned occasionally by stirring them with the hands. As soon as the nuts are dry put them over riddles to eliminate waste and undersized ones. When thoroughly cleaned bag them up and store in a dry, clean, airy place where they are secure from the attack of vermin.

The Outside Tomato-crop.

A new experience with the outside Tomato crop has been the severe attack of a stem-boring caterpillar identified by the Plant Research Station Entomologist as *Phthorimaea melanoplintha*, a species of the potato moth, *Phthorimaea operculella*. In habit and general appearance they seem identical. Splendid crops, full grown and well set with fruit, have suddenly commenced to wilt on the trellis, and examination has shown the base of the stem to be riddled by the borer, commencing to decay, and the functions of the plant entirely destroyed. Other plants less seriously attacked may be able to finish ripening the fruit, but the proportion of losses has in many cases been very high.

This pest provides another reason for

adding arsenate of lead

to the Bordeaux spray generally used. It should be carefully mixed, as usually advised, as the quality of adhesion is then at its best. To protect the plant from this pest it is necessary to carefully cover the main stem, just above the ground, as that vital spot is attacked in every instance, and usually that alone. A further important contribution to the control of the pest will be to burn or destroy all parts of potato, tobacco, and Tomato plants—in fact, any plants of that family, as soon as the crop is gathered. If the temperature is suitable this moth matures very quickly, and there are many generations in the one season.

The Market Garden.

About this period—earlier or later according to locality—it is customary to plant out early cabbages and cauliflowers that will mature during the month of September—valuable crops that deserve every consideration. With all crops of this class strain of seed is of first importance. Next to that come careful selection from the seed-beds. When lifting plants select those of a good size and even, with strong heart-buds. If plants are bought, carefully inspect them for club-root disease and discard cull plants.

Other areas now are probably in winter crops of savoy, cauliflower, broccoli, leeks, and celery, also root crops of parsnips, beet, and late-sown carrots. Areas which have carried half-hardy crops, however, will soon be vacant, and present an opportunity for sowing down in green cover-crops. This chance should not be missed.

In the absence of stable manure, which is too scarce for general purposes,

growing green cover-crops

is the only way of maintaining the supply of humus in the soil. Humus has important chemical and mechanical effects that are indispensable, and which cannot be obtained from chemical fertilisers. Soil temperatures and moisture, as well as bacterial activity, are greatly improved where a sufficient supply of humus is maintained. By pulverisation and oxidation during the ordinary operations of continuous cropping large quantities of humus are used up. The need varies in different classes of soil, but many new lands, and also those of a heavy nature, generally require a good deal.

As soon as the previous crop is removed now, light cultivation is usually all that is necessary before sowing the area down in barley, oats, and vetches, or horse-beans. These crops are hardy, and will make rapid growth at a season when scarlet and other clovers would make little progress. Early sowing now will assure a large bulk of vegetation for turning under in good time for it to sufficiently decay before starting early spring crops.

Before mowing off the ripe foliage of an asparagus crop it is often profitable to harvest the seed if the plants are of good strain. Gather the seed only from mother plants of good type.

Seed-beds of cabbage, cauliflower, and lettuce are sown down about this time, with a view to providing plants for setting out in July. A sheltered situation is desirable, and even a frame may be necessary, especially for the lettuce plants, which are susceptible to rust disease if the weather should be wet as well as cold.

Spinach for spring cutting may be sown now with good prospects of a profitable crop.—W. C. Hyde, Horticulturist, Dept. of Agriculture, Wellington, in "N.Z. Journal of Agriculture."

Late Spraying.

DURING THIS PERIOD of the year operations in the orchard are mostly confined to harvesting and packing the crop of pip-fruits for overseas and local markets. In addition, however, occasion may arise when the application of late sprays becomes necessary to control pests and diseases which persists until late in the season.

A close watch should be kept on late varieties of Apples and Pears in order to guard against that form of black-spot which is so often associated with dewy nights and the increasing humidity following early autumn rains. Immediately infection is observed it is wise to revert to an application of lime-sulphur at a strength of 1-100, otherwise a large percentage of the fruit may have to be rejected for only slight infection, which can be avoided. In addition, a late application of arsenate of lead is generally a good investment to prevent damage by leaf-roller caterpillar to the late varieties of Apples, particularly those with short stems, such as Sturmer, Rokewood, and others.

Emulsifying Oils.

Mention of certain features which have come under the notice of the writer during February, may be of service to readers. Many instances of incomplete or imperfect emulsion of emulsified winter oils for application during the active season have occurred. In one instance stale oil which had been contained in a cask for a long period proved quite unsuitable for applying at this season of the year.

In other instances the same type and brand of oil freshly obtained in tins gave perfect emulsions by adopting the following methods in mixing: To each gallon of oil slowly add 4 gallons of water in which $\frac{1}{2}$ lb. of soap-powder has been dissolved; the water should be slowly added to the oil while a vigorous agitation of the com-

bing liquids is maintained. The primary emulsion thus obtained should be then poured from one vessel into the other four or five times, giving the liquid a fall of 3 ft. to 4 ft. from one container into the other. The primary emulsion can then be poured into the spray vat and the engine started; next slowly commence to add water until the propellers of the agitators are covered, after which the main quantity of the water can be added quickly without any anxiety regarding reversion to free oil. The importance of obtaining perfect emulsions should not be underestimated, otherwise spotting of the fruit is likely to ensue.

The standard winter oils have proved very efficacious at a strength of 1-150 for control of red mite in the active season, and they also seem to refresh the foliage of the trees in the hot dry weather. Possibly this effect can be accounted for by a reduction in the rapid transpiration of the foliage during such periods.

Manuring.

Manures which are slow in action such as basic slag are best applied in the early autumn. Applications of lime should also be made at this time of the year.—M. Davey, Orchard Instructor, Mapua, Nelson.

Citrus Culture.

This period of the year, while the crop is developing, is a good time to overhaul the trees. All exhausted wood and water shoots should be removed, and the lower branches trimmed in order to keep them clear of the soil. If this is not done there is more danger of brown-rot infection during the period of autumn rains. These rains, falling on warm ground, are likely to perpetuate the spores of the disease if the soil does not have a chance of drying out fairly rapidly. As a preventive measure the trees should be sprayed with Bordeaux, 4-4-40, and repeated applications made if necessary.

In all cultural operations care must be exercised to prevent the soil becoming unduly high round the trunks of the trees, as this is often a cause for collar-rot. Care must also be taken not to leave depressions near the tree where water can lodge.

The present is a good time to attend to the

sowing of green cover-crops,

which can be turned under later on. The application of the autumn manures, as recommended in last month's notes, should be made to coincide with the sowing of these crops, and will greatly assist the growth as well as benefiting the trees. Blue lupins, tares, and *Lotus angustissimus* all make good material for building up the soil.

Intending planters will do well to remember that now is a good time to place orders for trees. If this is left until later the best of the stocks may be sold out, and it may be difficult to obtain what is required. Only the best should be ordered.—L. Paynter, Orchard Instructor, Auckland, in "N.Z. Journal of Agriculture."

Maturing Cured Tobacco Leaf.

THE QUESTION IS OFTEN ASKED: How does New Zealand grown leaf compare with that produced in America, and why is so much American raw leaf being imported into New Zealand? The answer is that it is almost impossible to make a comparison, because the samples available are so entirely different, being separated by at least three years' expert storage. Actually there are leaves produced in New Zealand that are equal to the imported American in color, texture, elasticity, combustion, and ash, but they are generally deficient in aroma, or the sweet-burning scent of the fully matured tobacco, which is only developed during long storage under proper conditions, and thus are inferior to the ready-to-use leaf imported from America.

The newly cured crop of tobacco leaf contains a large amount of albumen; this, under proper treatment, changes

into starch, and later the starch is converted into sugar. During this process of slow fermentation several other valuable oils and gums are generated. This fermentation only takes place satisfactorily under certain conditions, which may be briefly stated as follows: (1) The right amount of atmospheric moisture contained in the leaf when packed in bales or cases, 12 per cent. being correct. (2) The leaves must be packed so tightly together that no air can circulate, and the gases given off under fermentation are retained in the mass. Thus a package of 4 ft. by 2 ft. by 2 ft. should weigh about 500 lb.; this ensures the desired contact of leaves and absence of air. (3) The warehouse, barn, etc., in which these bales or cases of tobacco are stored for maturity should be maintained at temperatures not lower than 60 deg. F. or above 75 deg.

If these three conditions are observed, and the quantity stored is about 10 tons, moved occasionally, top side down, the fermentation will take care of itself, and take from two to three years—two years for the finer-textured

yellow-colored grades, and three for the coarser, heavier-textured, and darker-colored leaves, as these always contain more albuminous matter. New Zealand tobacco leaf so handled will compare quite well with imported American leaf of similar age and grade.

The manufacturers in New Zealand only import certain grades of tobacco leaf, suitable for their immediate requirements. On the other hand, all grades of New Zealand grown leaf have to be handled. The fine, well-colored, high-grade leaf is quickly disposed of, but the lower grades and discolored dark leaves are not in great demand. These are usually poorly handled, and are very freely commented upon and condemned by manufacturers.

The proportion of good-quality leaf produced on American farms is said to be higher than the average in New Zealand; but if such is the case at present, due to the limited experience of our growers, it is a condition that is capable of being steadily improved.—C. Lowe, Tobacco Instructor, Horticulture Division Dept. of Agriculture, in "N.Z. Journal of Agriculture."

Standardising for Apple Export.

A Uniform Case for Australia Should Secure Freight Reduction, Smaller Chambers and Better Handling.

IMPROVED METHODS FOR APPLE EXPORT are outlined in the following interesting notes from Mr. Ray Bailey, of Narre Warren, Vic.—one who has specialised in Apple packing. Mr. Bailey writes thus:—

ALTHOUGH most Victorian orchards are not shipping much to overseas markets this year, we hope to have good crops next year, and be in a position to supply Europe. With this in mind we should keep an eye on the packing question so as to be in a position to put up our fruit in such a way that it will meet any competition successfully.

Much is said of the advantage that America has over us in the matter of proximity to Europe, but when it is considered that our only serious competition comes from the Western States we realise that this advantage ceases to exist. The fruit has either to travel thousands of miles by rail to the Atlantic or go a much greater distance through the Panama, which brings their freight nearly up to ours.

Also to compete with us they have to store their fruit about six months on account of their seasons being opposite to ours.

It is amazing in view of this last fact, that American fruit should bring higher prices than Australian selling at the same time. We have every reason to believe that no fruit in the world can excel ours when it enters the average Australian packing shed and are forced to the conclusion that the difference is in the methods employed between the orchard and the market.

Packing and Transport.

The main items are packing and transport. The Department of Agriculture has given, and will yet give valuable assistance in the matter of standardised packing. We understand that a revised chart is in course of preparation and growers are eagerly awaiting its appearance. Discussion over the matter at this stage is premature, but we would like to have the essentials and the essentials only. One of the main points to remember in the standard case is that the crack in the lid and bottom will cut the fruit, whether close or open, unless a 3 x 3 pack is used or some packing material such as woodwool or cardboard covers the middle row. Also, as it is a resilient package, open pockets, loose packing, and an extra layer are most suitable,

The container is important, and until we adopt a standardised container.

for every State we will never overcome our transport difficulties. If we could convince the shipping companies that a case of Apples was a standardised article, i.e., that in a million cases every one would be of the same external dimensions and would be the same next year, I am sure they would make provision to stow and carry them more scientifically than at present, and thus facilitate quicker and more reliable cooling.

Under the present system, or rather lack of a system, much time must be wasted in sorting dumps and standards into their respective places. Even then space is wasted with irregular packages. If the shipping companies can use every inch of space and save time on loading, we would be entitled to ask for a reduction in freight charges, and, more important than anything else, smaller chambers.

Much has been said about the case question. There is not the slightest doubt in my mind that the standard case, when properly packed and handled is the ideal container for Apples, but if it is not properly packed and handled it is the worst of any.

It is a question which will have to be faced some day, and the sooner the better.

[Correspondence from growers on the points raised by Mr. Bailey would be appreciated.—Ed., "F.W."]

FRUIT FOR EXPORT.

Supervision Will be Strict.

The Commonwealth Department of Markets has announced that with regard to the export of Apples and Pears the grading regulations will be strictly enforced.

Growers and packers are urged to ensure that all fruit submitted for export complies with the regulations, as the Department intends taking action against those exporters who repeatedly submit for export fruit which is faulty in quality, falsely described, packed in inferior cases, or which for any other reason does not comply with the commerce regulations,

New South Wales.

NEW SOUTH WALES FRUITGROWERS' FEDERATION.

A MEETING of the Board of the Fruitgrowers' Association of N.S.W. was held on February 5 at Sydney. There were present:—General J. Heane (in the chair), Messrs. H. G. Such (Griffith), F. D. Inman (Leeton), T. A. Tester (Young), A. E. Herring (Batlow), A. U. Tonking (Orange), T. S. McDonald (Gosford), A. S. Brown (Ourimbah), P. C. Best (Dural), F. B. Mackenzie (Kurrajong), W. W. Challis (Kentucky), A. J. Taylor (Singleton), L. T. Pearce (Market Representative), and E. E. Herrod (Secretary).

There were also present Mr. C. G. Savage (Director of Fruit Culture, Department of Agriculture) and Mr. W. B. Gurney (Government Entomologist, Department of Agriculture). Apology received from Mr. H. G. Edgell.

Finance.—A budget expenditure of £3,013 was approved and applied for from the Orchard Registration Fund. Some of the items included salaries £1,223, travelling £400, annual conference expenses £400, rent £169, printing and stationery £110, publicity and organising £325, besides postages, telegrams, etc. The figure mentioned is £80 less than the 1931 budget.

Proposed Citrus Association.—The Secretary reported that citrus growers had not responded to the suggestions for better organisation. The last appeal was an invitation to growers to indicate their willingness to attend a meeting to decide upon some form of organisation. The response was so meagre that the Board decided to take no further action.

Price-fixing for Oranges.—There was a lengthy discussion regarding prices for Oranges. It was suggested that the fixation by the Railway Department of 1/- per dozen for Oranges resulted in the retail trade generally adopting that price. It was finally decided that the Secretary should meet those organisations likely to be supplying Oranges to the Railways Department to ensure a continuance of friendly relationships.

Lemon Growers' Association.—Mr. A. S. Brown reported the formation of a Lemon Growers' Association in the mountain districts around Gosford, primarily for the purpose of improving the methods of curing Lemons to ensure a high-grade Lemon being available for the market throughout the year.

Citrus Maturity Standard.—Mr. Savage said that the citrus maturity standards would be discussed at the Interstate Conference of the various State Departmental officers in March. The matter would also come before the Federal Citrus Council. Mr. P. C. Best was appointed to attend the Federation at the Citrus Council meeting.

Thrips Menace.—The Apple and Pear Export Council's decision on this matter and the resolution requesting a contribution towards the fund of £1,200 per annum for three years required to increase the staff of the Council for Scientific and Industrial Research received the attention of the Board. Mr. W. B. Gurney, Government Entomologist, outlined the activities of the Department of Agriculture and spoke of the work being done by the C.S.I.R. It was decided to endeavor to subscribe an amount not exceeding £100 per annum for three years towards the fund providing the other interested States subscribed in proportion.

Orchard Registration Fee.—Difficulties were noted in connection with the proposal that one-twelfth of the orchard registration fee collected in each district should be

granted to local Associations representing each district. A sub-committee was instructed to prepare a report.

Selling Commission.—Further consideration was given to the question of the elimination of the minimum of the flat rate of 6d. per case and 4d. per half-case allowed to be charged by agents, but it was decided after giving full consideration to the various arguments on both sides that for the present at any rate the rates should be allowed to stand as at present.

Murrumbidgee Irrigation Areas.

(By Our Correspondent.)

Griffith, 18/2/32.

In Apples, Granny Smiths are generally light, Jonathan rather heavier, but not coloring too well. The lessened attack by codlin moth is very noticeable.

Owing to the small crop, very little sunscorch is apparent, and trees have in most cases made excellent bushy growth.

The necessity of continued

hard-pruning on Granny Smith

Apples is very obvious, and where this practice has been adhered to good crops are showing. In spite of heavy infestations of thrips earlier in the season, where spraying was carried out thoroughly on one farm in particular, an exceptionally heavy crop of fruit is being harvested, and it is considered by many that frost and not thrips was the cause of most damage this season.

Pears.—Williams, somewhat light crops, with fruit inclined to be small. Packhams also light, with a few fair crops of good-sized fruit. Freedom from codlin moth on farms that have been flooded is also noted, where spraying conditions were favorable and the work well carried out.

Apricots.—There was a heavy crop of Apricots this season, the bulk of which has been dried, and an excellent product produced. In the Leeton district much fruit was sent to the cannery, and the balance dried; while from Griffith area a fair proportion was sent at first to the fresh fruit market while prices held good. The higher prices ruling for dried fruit has given growers more confidence in this fruit.

Plums.—Light, Angelinas being the principal fresh fruit Plum where grown, and the acreage is not large, most of this variety being used as pollinators for Prune varieties.

Peaches.—Elbertas and Blackburns light, although a few fair crops of splendid quality have been dried, and a fair quantity sent to the fresh fruit market.

Pullars and Golden Queens light, with one or two exceptions, where excellent crops are showing.

Prunes.—Light to none. D'Agens better than Robes; several growers have fresh fruited their Prunes owing to the light crop and good prices obtained for fresh Plums of any variety.

A considerable amount of sun-scald occurred and much fruit dropped on this account.

Oranges.—Some excellent crops of fruit are showing, but for the most part the effect of the winter floods is showing on the trees. On the better drained farms the trees are looking splendid, and are showing a profusion of new autumn growth, but on the shallower soil the trees, although showing signs of recovering, have a somewhat thin appearance and the crops are light.

In some cases, owing to the excessively hot weather following on a long and very wet winter, the trees have died out in patches. It is difficult to attribute a definite cause to this, as perhaps two or three trees may have died out while those alongside are in splendid condition, full of new growth, and showing a good crop. In some cases the affected trees are dotted all over and among a fairly healthy patch of trees, and the assumption that these trees, having been weakened by the floods were struck by the spring frosts, which damaged the new growth, may be a correct one.

Valencias.—Light to moderate crops.

Lemons.—There was a very heavy crop last season which in many cases was left hanging on the trees until late in the season, in the hope of obtaining better prices, but the effect on this years' crop is evident, and in consequence, a light to moderate crop will be harvested.

A few very good crops of summer Lemons were showing during November and December.

Mandarins.—Fair to light, with a few exceptions.

Currents.—Very good crops, some heavy, but the heavy rain of January and during the early part of February has split a fair amount of fruit. Birds have also taken a somewhat heavy toll of the fruit in parts of the Area.

Sultanas.—Good to heavy crops of excellent fruit.

In spite of the very bad attack of black spot last season, little of this disease has shown up this season, certainly not enough to do any material damage, and the best crop for many seasons past is likely to be harvested if weather conditions improve.

During February heavy rains fell, and there was a fair dropping of berries, but there still remains a very excellent crop of unspoilt fruit which should dry out an excellent sample.

Most growers favor using the mixed dip, and given favorable conditions as are at present showing, an even pack should be the result.

But for the rain, many growers would have made an early start with their picking, but they are now inclined to hang off until the weather conditions improve, as they show signs of doing. Much of the fruit on heavy foliaged vines is still quite sour and lacking in sugar. Beaume tests made showing a decrease of two degrees since the rain.

General Remarks.

Citrus and deciduous trees, also vines in some cases, and patches of pome fruits growing on low-lying farms

are showing the effects of the heavy winter floods, and growers were inclined to leave their cover crops or weeds to grow far longer than usual in order to take out any excess of water and avoid a high water table accumulating.

The very hot spell of weather during November and December caused a great drying out of the soil, and where the farms were not kept cultivated or the cover crops ploughed in early, the trees showed signs of distress and actual want of water, and many trees, specially citrus, dropped both fruit and leaves in consequence. The two great extremes of wet and heat have been very severe, and the application of irrigation water to affected trees has been very beneficial.

The large area of citrus trees which are just coming into bearing in the Ballingal extension area, are showing great promise, and the farms are mostly well worked.

Over 700 acres of citrus is growing around this area, and more farms are being prepared.

The first of the farms here were allotted to those settlers who were transferred from unsuitable horticultural farms in the Beelbanger District and the progress made on the majority of the farms shows that the soil is well suited to the growing of citrus fruits.

Banana Sales.—Speaking at a meeting of the Tweed district council of the N.S.W. Banana Growers' Federation, at Murwillumbah, N.S.W., the President, Mr. H. L. Anthony, said he did not think it would pay growers to dispose of their fruit through the Railways Department, except in the case of a glut, as better prices were offering in the local market. The railways, however, did the job thoroughly and ran a well conducted campaign. The price recently offered by another party of 14/- a case for 8's, was on the low side.

SHIPMENTS OF PRUNES TO CANADA.

The Young District Producers' Co-op. Association recently sent several trial shipments of Prunes to other countries. This Association has now received a letter from the Australian Trade Commissioner at Toronto (Canada) congratulating them on their enterprise, also on the preparation of the Prunes. It was advised that all sunburnt fruit be rigidly culled. This should be an encouragement to Prune growers at Young.



"I Obtained 98% Clean Crop"

Forest Range, S.A.*

"Having used your Whitespray last year, I wish to advise that the results obtained were very satisfactory. In this district the codlin was very bad, and I am pleased to say that I obtained 98% clean crop."

(Sgd.) H. A. BAUM.

The above is typical of the praise received for both SHELL Whitespray and SHELL Redspray.

WRITE TO THE SHELL COMPANY LTD. FOR FULL PARTICULARS.

SHELL SPRAYING OILS

Pear Export.

Costs of "Long Bushel" and "Three-quarter Bushel" Compared.

As there appears to be a wide difference in the costs of exporting Pears to the United Kingdom in the much discussed long bushel case and the "8-inch standard Pear case" (sometimes called the "three-quarter case," the following comparisons, compiled by Mr. Basil Krone, Fruit Packing Expert, Department of Agriculture, Victoria, will be found interesting. Mr. Krone writes:—

Assuming that the exporter of Pears to London in the "long" bushel case realises 15/- per case and the same price is realised by those who use the "8 inch standard Pear case," the loss to the former is tenpence farthing per case which, if based on an output of 25,000 cases from an association or co-operative packing house, amounts to £1,045/16/8.

Where an association or co-operative packing house use the "8 inch standard Pear case" exclusively, this saving would be the equivalent of £20/2/3 per week, which would go a long way in paying the manager's and other wages, etc.

Returns last year proved conclusively that there were not many growers who received very much more per case for their "long" bushel cases, and, on an average the prices were fifty-fifty.

Cost of Exporting.

"8 inch Standard Pear Case."

(18 x 11½ x 8 inches, inside measurement.)

Net weight of Pears in case 41-45 lbs.

(All counts have been weighed.)

	s.	d.
Case, made up (softwood)	0	10
Corrugated cardboards (blue, fast color, 4 each case)	0	2½
Wood-wool (nil if cardboards used).		
Packing (piecwork)	0	3
Rail freight (100 miles from Melb.) at 10/3 per 46 cases to the ton	0	2½
Shipping freight to London 3/2		
Plus 18 per cent. exchange 6½		
	3	8½
Total	5	2½

"Long" Bushel Case.

(26 x 6 x 14½ inches, inside measurements clear of the division.)

Net weight of Pears in case 40-47 lbs.

(All counts have been weighed.)

	s.	d.
Case made up (softwood)	1	1
Corrugated cardboards (blue, fast color, 4 each case)	0	2½
Wood-wool	0	0½
Packing (piecwork)	0	4
Rail freight (100 miles from Melb.), at 10/3 per 40 cases to the ton	0	3½
Shipping freight to London 3/6		
Plus 18 per cent exchange 8		
	4	2
Total	6	1

Difference in cost, 10½d. per case.

Based on a 25,000 case output at 10d. would be a loss or gain of £1,045/16/8.

FRUIT-GRADING MACHINERY.

The implement works of D. Harvey, Box Hill, Vic., was a hive of industry during February—principally in the assembling of fruit graders. This section of the Harvey works was busy fulfilling orders for graders of all sizes. The majority were for delivery in Tasmania.

One of the larger graders nearing completion was for a leading Tasmanian grower of export fruit. This grader is so designed that there is no chance of the fruit becoming mixed. The local and interstate fruit is graded to one side, and the export fruit graded to the other. During the whole process of grading, the fruit does not come into contact with the wood, the machine being covered with rubber or felt.

Another feature of this machine is that the packer can have one to four bins of the same size fruit. This is a decided advantage, as when a certain size predominates, that particular size fruit will soon fill the bins, but by a simple movement of closing a shutter the fruit can be diverted into another bin. This saves the necessity of having to stop grading as is the case when the bin of a particular size fruit is filled.



A popular type of the "Harvey" fruit grader.

Imperial Fruit Show.—Schedules are to hand for the Spring section of the Imperial Fruit Show to be held in London on June 7 and 8 next.

FRUIT TREES

ORDER NOW!

Goodman's Reliable Trees are the best obtainable—prolific bearers of finest marketable fruit, successful in all districts.

All varieties—Apples, Pears, Plums, Peaches, Apricots, etc., all true-to-name, sturdy, well-grown, free from insect pests—grown, graded, packed and despatched by experts. Order now for this Winter's Planting.

New Trade Price List now available. Wholesale buyers, etc., are advised to write for their copy without delay.

C. J. GOODMAN,

Picnic Point Nurseries,
BAIRNSDALE, Vic.
(W.M.F.)

Citrus Notes

CITRUS IN NEW SOUTH WALES.

Good Crops Forecast.

THROUGHOUT THE MAIN CITRUS producing areas the indications are that Valencia Late Oranges have set a good crop, probably a little greater than in the 1929-30 season (writes Mr. C. G. Savage, Director of Fruit Culture, N.S.W. Department of Agriculture, on February 16).

Navels are not so heavy, appearing to be a moderate crop only of possibly a heavier setting on the coast than last year, with inland areas a little less.

A medium crop of common Oranges, also of Emperor Mandarins and Lemons, is expected.

The weather conditions have changed a little from excessively hot and dry conditions to milder weather, with some rain in most parts.

Treatment for pests and diseases has mainly been energetically practised. Fumigation on the Murrumbidgee irrigation areas being largely favored, whilst spraying with oils is more general on the coast.

Citrus Bud Selection.

Much activity was displayed during February by the Citrus Bud Selection Co-operative Society. This society is a non-profit organisation formed about three years ago, with the object of raising the standard of citrus varieties. In 1930 the society supplied just under 20,000 buds, but in 1931 the number had increased to 52,000. Mr. R. J. Benton, Citrus Specialist in the Department of Agriculture states that growers still pay too little attention to the origin of the stock they use.

EXPORT OF ORANGES.

Growers of Oranges in New South Wales are giving consideration to the matter of export. The shipment of 1,500 common Oranges from the Glenorie and Wyong to London in July last shows that the fruit could be safely carried. The shipment consisted mainly of the following varieties:—Siletta, Joppa, Parramatta, Paterson River Seedlings, also Washington Navels and Valencias. The prices realised were from 10/- to 14/-, though some touched 16/-. The shipment clashed with heavy supplies from California, Brazil and South Africa. Mr. R. J. Benton, Citrus Fruit Instructor, N.S.W. Department of Agriculture, advocates more effective organisation among the growers in order that this trade may be developed commercially.

CITRUS IN VICTORIA.

Oranges Promise Well.

A recent report from the Department of Agriculture states that the warm dry weather of January was beneficial to citrus growers generally; growth has been vigorous and the fruit is swelling well. The heatwave destroyed large numbers of Lemons. Thrips markings are prevalent on the young fruit, but on the whole the fruit appears to have a fine texture and fairly free from rind blemishes.

RED SCALE ON CITRUS.

The Department of Agriculture of Victoria earnestly advises growers to make strenuous efforts to combat red

scale. Trees should be sprayed with oil or fumigated as early as possible.

On the Murrumbidgee irrigation area recently a meeting of 150 growers decided on a community programme to fumigate citrus trees affected with red scale and to persevere until the red scale was wiped out.

QUEENSLAND.

Citrus Crops.

A letter has been received from the Queensland Director of Fruit Culture (Mr. W. J. Ross), who states:—“Reports received from the various citrus areas predict that the forthcoming crop will, on the whole be moderately good, Navels, Joppas and Valencias among Oranges, and Glen Retreats and Emperors among Mandarins predominating.

“Notwithstanding the unusually dry conditions during January and the high temperatures experienced about the end of that month, followed by rain more recently, no serious dropping or splitting of fruit has so far been experienced and orchards generally are behaving rather pleasingly to all concerned, the crops being well advanced.

“Drought and heat experienced for some time prior to recent rain storms have had much less serious effects upon orchards where good cultural practises have been adopted than in cases where opposite conditions prevailed.

“In the Burrum-Howard area the Emperor Mandarin is losing favor with some growers, and numbers of trees will be worked over in season with the Glen Retreat.

Sydney Harbour Bridge Celebrations.—The Fruit-growers' Federation of New South Wales is preparing a float symbolic of the fruit industry for use in the pageant in the Sydney Harbor Bridge celebrations. As part of the design, provision has been made for the attendance of six girls, and the Board of the Federation is seeking the assistance of six girls within the industry. Strong girls are necessary, as the proceedings may be tiring. The float itself will be in the nature of a structure built on a horse-drawn jinker. The Board of the Federation has issued an invitation to members' daughters who may desire to take part in the pageant to send notification as early as possible to the Secretary, Col. E. E. Herrod, Watson House, 11 Bligh-street, Sydney.

FRUIT TREES

ONE GROWER SAYS—

“The trees (750) arrived in excellent order and are of exceptional quality. Our local inspector said they were the best trees he had seen. You will get my order, about same number, for next year.”

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Dried Fruits Notes.

MID-MURRAY NOTES.

(By Our Correspondent.)

WE HAVE HAD one of the most trying and fickle seasons within the life of the irrigation settlements. Up till Christmas time the weather had been particularly mild, more like early spring than summer.

A sudden burst of extreme heat for a month, with very few days below 100 degrees—reaching up to 117 degrees—commenced on Christmas day and ended January 21. Loss of Gordos through sun scorch has been severe in places—many growers sustained a 60 per cent. loss, but in the main the loss throughout the settlement will not reach more than 10 to 15 per cent.

Currant picking commenced in isolated patches in the last week of January. This was mainly brought about through the fruit commencing to wilt, owing to shallow rooting vines on poor soil shedding many leaves owing to the gruelling heat burst.

In a flash the heat gave way to intermittent rain and sultry conditions extending over several weeks, with the result that a good deal of loss has occurred on blocks

part of growers. Very few moths have been caught in lures, and the fruit is about 98 per cent. clean, where ordinary sprayings have been given. The same absence of codlin is in evidence right throughout South Australia, and in many quarters it is considered a biological reason.

So impressed are some of our entomologists with the biennial recurrence of a bad infestation of codlin, that a fresh line of research is opened to them which should lead to interesting information.

The annual social of the Renmark Fruitgrowers' Co-operated took place on January 29, and was attended by over 200 shareholders. The Chairman of the Board, Mr. H. D. Howie, presided, and after the loyal toast of "The King," proposed the toast of "The Industry." Mr. A. L. Johnstone, of Mildura, responded. Mr. C. Ruston proposed the toast of "Kindred Societies," to which Mr. F. McGlasson (manager of the Berri Fruit Packing Union Co-op.) responded, as also did Mr. R. Williams (Chairman of the Barmera Fruitgrowers' Co-op.). Mr. H. W. Nicholas proposed "The Dried Fruits Industry," to which Mr. Winterbottom (of Mildura) and Mr. D. Farmer (organiser for the A.D.F.A. (Australian Dried Fruits Association) responded. Mr. V. R. Kemp proposed "The Visitors," which was responded to by Messrs. W. N. Ellis (Berri) and D.

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Representatives—

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having been irrigated just prior to the rain. Here again the loss is confined to certain areas of strong-growing heavy foliated vines, while the lighter crops with less foliage have escaped damage.

Many growers started Sultana drying in early February, prior to the picking of Currants. Of late years there has been a tendency to get on with the Sultanas at an early date owing to the better color obtained with the early fruit.

The demand for

light colored Sultanas

by our overseas buyers entails a process of longer drying period than in the days when a caustic soda dip was universally used. Both Sultanas and Currants are carrying a heavy crop, but Gordos and wine varieties are light in spite of the trying weather conditions; provided we get a fine March-April, Sultanas should be of good color.

Pear picking has been in progress for many weeks, thousands of cases going to the cannery of H. Jones & Co., who are the only ones operating in Duchess Pears. This cannery being unable to cope with all the fruit offering, a large crop will have to be dried.

The absence of codlin moth

this year has been a feature of much speculation on the

Sims, of Barmera. Throughout the whole proceedings a vein of optimism marked the tone of each speaker, and a very happy evening was spent.

The inauguration of an annual social dates back many years, and has been the means of establishing a strong bond of sympathy between the Board and its members and given them a thorough grip of the spirit of co-operation, so necessary to the success of the primary producer.

It was realised a great many years ago that an annual general meeting is too formal in its procedure to establish a spirit of comradeship, but at a social, where every member meets its Board on a level footing, all contentious matters are dropped and the proceedings create a feeling of goodwill of lasting value.

The success of an annual social has spread to most co-operated concerns on the River. The Renmark Growers' Distillery held their annual social on February 6. Mr. D. T. Durieu (Chairman of the Board) occupied the chair, and after the loyal toast, in a brief outline, gave the prospects of the coming vintage.

Mr. Ted Thomas' orchestra livened the proceedings, and with many songs made the evening enjoyable and entertaining.—"Nemo," Renmark, South Australia.

February 15, 1932.

AUSTRALIAN DRIED FRUITS.

Last Season's in England Cleared.

Crop of 50,000 Tons Expected in 1932.

THE Chairman of the Commonwealth Dried Fruits Export Control Board (Mr. W. C. F. Thomas) is in receipt of telegraphic advice from the London Agency of the Board intimating that during the past week sales have been effected covering the balance of the Australian dried fruit held in Great Britain, as practically the whole of the Sultanas and Currants had been disposed of some time ago, and the present sales covered approximately 441 tons of Lexias held in London or landing. The price realised was £27/1/10 per ton, to which has to be added the exchange on the proceeds remitted to Australia. This sale is regarded as being very satisfactory in view of the limited demand for Lexias in Great Britain.

With this advice the Commonwealth Dried Fruits Board furnish the following statistical information relative to the realisation of the 1931 crop:—

Total shipments effected to ports in Great Britain were 25,326 tons, and the average prices realised in Great Britain were as follows:—

Sultanas	£57 10	3 per ton
Currants	41 10	6 per ton
Lexias	36 17	0 per ton

The picking and processing of the 1932 harvest has commenced, but it is regretted that in the Mildura and in a lesser degree in the South Australian areas the rainfall during the past fortnight, followed as it was by somewhat humid conditions (and which rainfall proved of great value to other industries) has militated against the dried fruit harvest which is not only substantially reduced in extent, but has suffered in quality.

Given satisfactory conditions during the next few weeks, it is anticipated that a total harvest of not less than 50,000 tons may be realised in which event an export surplus equal to that of last season may be anticipated.

All markets are open for the supplies of Australian fruit and despite the reduction in tonnage and quality, it is confidently hoped that the realisation of the coming crop will be equally if not more satisfactory to the industry than the favorable experience of the past season.

DRIED TREE-FRUITS.

Legislative Control Proposed.

AT a meeting of the consultative committee of the State Dried Fruits Board, which met in Adelaide early in February, it was decided to recommend to the South Australian and Victorian Dried Fruits Boards that, in conformity with the N.S.W. Board, steps be taken for the proclamation of dried Prunes, Peaches, Apricots, Nectarines and Pears, as dried fruits within the meaning of the respective State Acts, and that, subject to the approval of the Boards concerned, the Commonwealth Minister for Markets be asked to introduce the necessary legislation for the control of interstate trade in these varieties.

Legislation Opposed by Shepparton Growers.

A well-attended meeting of the Shepparton Irrigators' Association on February 25 carried a resolution opposing the proposed legislation to control dried tree fruits, and pledging growers to strenuously oppose the proposal.

DEATH OF MR. H. S. TAYLOR.

The Fruit Industry Loses a Champion.

The passing of Mr. H. S. Taylor, who had for 26 years been editor of the "Murray Pioneer," marked a day of grief for Renmark and the other River settlements.

Always a man to take his work seriously, he worked for the dried fruits industry, and for the welfare of the man on the land until the small hours of the morning. Year in, year out, the amount of subject matter he produced was stupendous. He lived for his work and spent his energies in the interests of his fellow-men. An authority on horticultural matters under irrigation, he was of particular value as a member of the State Advisory Board of Agriculture, and interested himself with a complete and sympathetic understanding of our problems.

Being appointed a life member of the Agricultural Bureau some years ago, he interested himself in the welfare of the Bureau system. The late Mr. H. S. Taylor was beloved by all who came in contact with him, his courteous manner, and kindly nature made a strong appeal to every section of the community.

When fighting for the interests of the primary producer he wielded a mighty pen, and would not spare himself in an effort to right an injustice. Long hours of overwork eventually undermined his constitution, and we have lost a man beloved by all for his great unselfishness and devoted attention to the interests of the man on the land.

DRIED FRUITS BOARD.

The following candidates have been nominated for election as members of the Victorian Dried Fruits Board:—No. 1 District: H. V. Davey, of Redcliffs; E. T. Henderson, of Walnut-avenue, Mildura; S. R. Mansell, of Mildura; W. H. Tickell, of Merbein. No. 2 District.—D. A. Cockroft, of Woorinen; S. J. Parish, of Vinifera, via Nyah.

As the number of candidates is greater than the number of members required, a vote of growers will be taken. Ballot papers were posted to growers during January. They should be returned not later than 4 p.m. on March 14.

N.S.W. DRIED FRUITS BOARD.

Additional Regulations.

The N.S.W. Dried Fruits Board direct attention to several additional regulations which have been comparatively recently made, and which will be enforced during the present season. The regulations refer to Receipt Notes, Release Notes, Drawback Fruit, Delivery of Dried Fruit to Packing Shed, Sale of Unpacked Dried Fruit. Full particulars are obtainable from the Secretary of the N.S.W. Dried Fruits Board (Mr. G. A. Try), c/o Water Commission, Raphael-street, Sydney.

An election of two members of the New South Wales Dried Fruits Board to represent fruitgrowers, was held on February 10. Messrs. E. J. Hudson and C. G. Moss were nominated to represent growers on the Murrumbidgee Irrigation Areas, whilst Messrs. R. A. C. Freeman and L. B. O'Donnell were nominated to represent growers in the rest of the State. The ballot resulted in the election of Messrs. E. J. Hudson and L. B. O'Donnell, Mr. G. J. Evatt, one of the commissioners for water conservation and irrigation, who has been appointed by the Governor-in-Council, is the chairman. The elected members hold office for two years.

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Queensland.

Banana Packing Shed Successful ∴ The Pineapple Industry ∴ Fruitfly Lures.

(By Our Correspondent.)

Gympie Notes.

Gympie (12/2/32).

The half-yearly meeting of the Gympie Fruitgrowers' Association was held on February 2. Mr. A. G. Stewart presided, and there were also present Messrs. A. Cheales, W. J. Adderley, C. C. Cullen, L. Haylock, H. Euston, A. Lobb, E. Thurecht, W. Williams, H. Craig, F. Sauer, F. Gilmour, and the Secretary, M. Buchanan.

Central Packing Shed.

Chief discussion centred around the operations of the central packing shed. The Secretary stated that though the supplies had not been as heavy as desired, the experiment was satisfactory. The prices of Bananas were 2/- per case over privately packed fruit.

The report of the Central packing shed was read by the Secretary, and stated, *inter alia*, that the packing shed, crude as it was, clearly indicated its value.

Conveying Fruit Plantations to Shed.—Many methods had been tried, hands packed loosely in trucks, hands in large boxes placed into 2, 3, or 4 layers high, some packed vertically, shanks down with woodwool between each layer, others carried with hands placed horizontally one over the other; also loose full hand packed Banana cases, and, last, in bunches. Contrary to expectations, bunch carrying proved to be best.

Packing.—The valuable assistance of Mr. Parnell (C.O.D., Melbourne representative) was appreciated. He had condemned the no shank pack whether single, double or any number, as these methods invited black end and other ills at the ripening end. He recommended the "Avery" pack as the best for both summer and winter conditions. Under this method the fruit is taken vertically in twos from the hand with plenty of shank left on, and placed side by side on each end of the case. This pack had been adopted, and many congratulatory messages had been received.

Packing Costs.—These varied considerably, but the charge over the period was a little too light at 2/4 a case. This included case, nails, paper, casemaking, de-handing, classing, packing, nailing down, branding, recording, loading, cleaning up and advising. With cases at a 1/- each and improved facilities, this charge would be about correct and would show a surplus.

Methods of Marketing.—Each grower directed his own consignment, but his name did not appear on the case, as the packing shed label showed only the grower's number, and the agent alone was advised of the grower's identity. The returns were sent direct to the grower and a duplicate statement sent direct to the office for recording purposes.

Results and Conclusions.—The returns showed that shed packed fruit brought 2/- per case more than fruit sent by the average packer. The system was a commercial success. On the motion of Mr. Adderley, it was unanimously decided "that this meeting is entirely satisfied with the staff of the office and packing shed, and wishes to express its appreciation of the officers in carrying out their work."

THE PINEAPPLE INDUSTRY.

Messrs. J. A. Bennett, F. Nicklin and J. Clayton, the sub-committee appointed by the Pineapple Sectional Group Committee to consider the prices for the summer crop, attended a special meeting on February 3, and reported that after a test at the cannery the previous day, they arrived at a decision as to the weights of the cases, tops on and tops off, and the prices to be paid respectively. Pineapples, 4 to 4½ inches, are to be sent, tops on, throughout the season, and 4½ to 5 inches

Do not run any Financial Risk with your Fruit
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Victorian Central Citrus Assn. Ltd.

Tasmania: State Fruit Advisory Board.
New South Wales: N.S.W. Central Citrus Assn. Ltd.
Batlow Packing House Co-op. Soc. Ltd.

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"Aero" Brand Arsenate of Lead Powder is the lightest in texture of any Arsenate of Lead on the market, and is therefore ideal for dusting purposes. For wet spraying it readily and evenly mixes in the spray tank, and is so impalpably fine that it never chokes the spray nozzle.

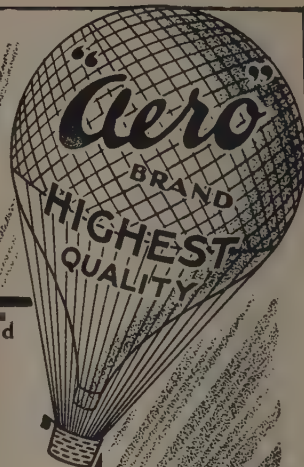
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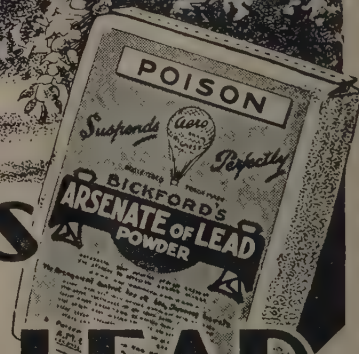
TASMANIA (Southern Districts)—
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NEW SOUTH WALES—
BUZACOTT & CO. LTD.
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QUEENSLAND—
BUZACOTT (QUEENSLAND) LTD.
413 Adelaide Street, Brisbane.

VICTORIA—
RAMSAY & TREGANOWAN LTD.
469-477 Latrobe Street, Melbourne.



and 5 inches and upwards are to be sent, tops off, during the peak of the pack only, and at other times tops on. The price to be paid is 3/6 at growers' station for tops on, and approximately 4/5 per case net for tops off. Tops must be cut, not broken. Under no circumstances must fruit be under 4 inches on arrival at the cannery, rejects are to be returnable to growers.

Banana Land Open for Selection.—Nineteen Banana blocks are being surveyed on State forest reserve No. 835 in the parish of Goomborian. They will be made available for selection as soon as the timber is removed, particulars can be gained from the local land agent. This year opened extremely dry in this district, and the small rainfall, as well as the very hot dry weather has resulted in a falling off of the output of Bananas and Pineapples, as well as the dairying industry.

Experiments With a New Fruit Fly Lure.—The trapping of fruit flies (Trypetidae) by means of attractive odors or lures, has been practiced in Queensland for years. In 1909, W. W. Froggatt recorded the attraction to citronella oil to the male only of the mango fly (*Dacus ferrugineus* F.); C. W. Malley and C. P. Lounsbury recorded that paraffin oil attracted the Mediterranean fruit fly (*Ceratitis capitata* Weid), more particularly the males; F. M. Hewitt discovered that the males of the Peach fly (*Dacus zonatus* Suand), were strongly attracted to citronella oil, and Bach and Pemberton that many of

mercial glass bowl fly trap, which are charged and hung in the trees by means of strong wire twisted round the neck of the trap and bent into a convenient crook at the end. The formula of the Jarvis lure is:—Imitation vanilla essence $\frac{1}{2}$ oz., household ammonia $\frac{1}{2}$ oz., water 26 oz., this is diluted by a five to one strength for use.

During the currency of the tests the weather was exceptionally dry, which cannot but be concluded operated to advantage by destroying countless numbers of fruit fly puparia in the soil, it will thus be realised that the period covered was not ideal for obtaining conclusive results as to the importance or otherwise of luring as a control measure for fruit fly.

It has yet to be ascertained just how important luring is in a bad season, but the trapping of large numbers of fruit flies, of which the majority were females, must in no small degree help in limiting local fruit fly increase when it is realised that each female is capable of laying about 60 or 70 eggs. This lure being cheap, efficient and easy of manufacture should meet the requirements of those interested in luring as one of the means of combating the fruit fly pest.

The fruit railings from Gympie to the southern markets for the month of January was 30,208 cases, the majority being consigned to the Melbourne markets. The Pineapple crop is now being harvested, and the canneries are very busy, and the price very satisfactory.

Herbert Wilson

Pty. Ltd.

Wholesale Fruit Merchants
and
Commission Agents

Nos. 1 and 10 Wholesale Fruit Market
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Accredited Agents for Victorian
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Tasmanian Apples

Orders for Apples carefully
handled and undertaken for all
Overseas & Interstate Markets.

E. R. COTTIER Pty. Ltd.

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Tel. add. "ERCOT," Hobart.

Consignment shipments solicited
on behalf of leading Fruit
Brokers and Salesmen through-
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T. STOTT & SONS

Fruit Merchants

Established 1882

A Trial Consignment soli-
cited from Growers in all
States.

Prompt Settlement.

26 New Wholesale Fruit
Market, Melbourne

the oils from crude petroleum and certain vegetable oils attracted the Melon fly (*Dacus cucur bitae* Coq), and the Mediterranean fruit fly. Newman was successful in trapping large numbers of fruit flies with a pollard and water bait.

A. W. Harvey evolved a lure that trapped males of the Solanum fly (*Chaetodactylus dorsalis* Hendel), and after further experiments, was able to attract the Queensland fruit fly.

In 1928, Hubert Jarvis formulated a lure that was successful against the Queensland fruit fly, the Jarvis fruit fly, the small black fruit fly (*Dacus niger* Tryon), the Solanum fruit fly, the boatman fruit fly (*Rioxa musa* Frogg), and the Mediterranean fruit fly. The lure which is a combination of imitation vanilla essence, ammonia and water, was found to be particularly attractive to the Queensland fruit fly and the Mediterranean fruit fly, and during the 1930 season, was used with much success at Stanthorpe, Toowoomba and the County of Cumberland, N.S.W.

The traps that contain the lure are the ordinary com-

The Gympie district, already leading in Bananas, is assuming prominence for Pineapple culture, also in the production of French Beans. In 1931 there were 530,186 cases of Bananas exported to the other States, in addition to large quantities sent to Brisbane and other parts of Queensland. The majority sent south are of the Cavendish variety; Sugar Bananas are sent to the Brisbane market.

Pineapples sent interstate and to the canneries last year totalled 64,854 cases, an increase of 50 per cent. on the previous year, which is easily a record production. A total of 727,466 cases of fruit and vegetables were sent from this district to the south, and the canneries at Brisbane had an increase of over 200,000 cases, compared with the previous year.

Banana planting in Queensland is still proceeding, but the area planted this season will be far below that of 1930-31, although production towards the middle of the current year will be considerable when last years' plants come into bearing.

SUGAR AND FRUIT INDUSTRIES.**Allocation of Concession Funds.**

Assistance in Exporting Canned Pineapples, Apricots, Peaches and Pears, also Jams.

THE Fruit Industry Sugar Concession Committee concluded its fourth meeting in Melbourne on February 5, and made available the following information relative to decisions reached.

It was decided that manufacturers who buy fresh fruit from agents operating in the fresh fruit market may receive the domestic sugar rebate only if they pay for the fruit not less than the full equivalent of the minimum price prescribed by the Committee, plus sixpence per case representing the secondhand value of the cases.

The Committee decided to allocate the sum of £10,000 to assist the export of canned and crushed Pineapples of the 1932 pack to the United Kingdom, and/or Canada. This sum will be reduced by an amount equivalent to any increase in the canners' net f.o.b. return per dozen tins (including exchange, sugar rebates, drawback on cases, etc.), above 9/6, for 30 oz. tins, 8/- for 20 oz. tins, 6/9 for 16 oz. tins, and 25/- for No. 10s, and the Committee must also be satisfied that canners have obtained the best possible prices for their exports.

In regard to jams made from fruits of the 1931/32 fruit season and exported to any destination outside the Commonwealth, an amount of \$5 per ton on the sugar contents of such jams will be paid by the Committee. This amount is additional to domestic and export sugar rebates, and will be calculated on the quantity of sugar specified in export rebate debentures.

It was decided to pay rebates on exported jam on the basis of a sugar content of 60 per cent. of the net weight of the jam; this arrangement will apply to all jam exported since August 31, 1931.

With regard to the net f.o.b. costs per dozen 30 oz. tins which will be guaranteed to exporters of canned Apricots, Peaches and Pears, of standard quality, viz., 8/4 for Apricots, 8/9 for Peaches, and 8/11 for Pears, the Committee decided that in the case of fruit of "choice" quality, these rates will be raised by 6d. per dozen, while for fruits of "second" quality they will be reduced by 6d. per dozen.

The financial assistance which the Committee has allocated for the export of various canned fruits, jams and pulps applies only to such products as are processed from fresh fruit of the 1931/32 season's crop, and all shipments must be effected before December 1, 1932.

THE SUGAR AGREEMENT.**A Burden to Australia.**

The Commonwealth Auditor-General (Mr. C. J. Cerutti) has strongly criticised the Sugar Agreement in the course of his report which was tabled in the House of Representatives on February 19. The report states that the Sugar Agreement imposes on the community an enormous additional cost, adding to the expense of the homes of rich and poor alike.

While the price for sugar in Australia was £36 per ton, the present price for sugar in Java and Cuba was about £6 per ton. On a local consumption of 300,000 tons and after making all necessary allowances the cost of

NEW MIXED FERTILISERS

A variety of new mixed fertilisers is available to fruitgrowers. Your fertiliser agent will gladly quote you. Of particular interest are the 2-2-1 and 5-1-1 mixtures

These contain respectively :—

2 parts superphosphate
2 parts sulphate of ammonia
1 part potash

and

5 parts superphosphate
1 part sulphate of ammonia
1 part potash

and are excellent buying at current list prices.

There are other mixtures of superphosphate and sulphate of ammonia which are well worth your while knowing. Ask your agent to point out the new mixtures, and write us for our "Mixed Fertiliser Recommendations."

NITROGEN FERTILISERS PROPRIETARY LIMITED
360 Collins Street, Melbourne, C.1.

the industry upon the community was £7,000,000 a year. The 30,000 workers employed in the industry cost the community over £200 each annually. Economically the sugar industry was a poor one and a burden rather than an advantage to Australia.

Colonial Sugar Refining Company.

"It is difficult," continues the report "to refrain from comment on the great success achieved by the Colonial Sugar Refining Company Ltd., which, from a capital of £2,425,000 paid up in cash, has, out of profits built up a business in paid up capital of £5,580,000 besides reserves, after allowing for depreciation of over £8,500,000. During many years large dividends have been paid, besides a return to the shareholders of £3,900,000 in cash out of the capital provided by bonuses. There can be no doubt this company has attained its present prosperous and monopolistic position as a result of the high price which the consumers of Australia have paid and are continuing to pay for sugar."

* * * * *

The Prime Minister, Mr. Lyons, issued a statement suggesting a voluntary review of the agreement.

The general public is in accord with a review of the agreement, voluntary or otherwise, despite the joint protest issued by the Australian Sugar Producers' Association and the Queensland Canegrowers' Council.

A CLEAN SWEEP.

Politician: "We want to sweep the country, my love."

Wife: "Well, don't despise small beginnings. Here's a broom. Suppose you made a start with the dining-room."

CODLIN MOTH.

Reduced Attacks in N.S.W. and South Australia.

What is the Cause?

REDUCED ATTACKS BY CODLIN MOTH are reported from correspondents at Renmark, South Australia, and Griffith, Murrumbidgee irrigation areas, N.S.W. The cause of this lessened attack by codlin has aroused much interest. Our correspondent at Griffith, N.S.W., writes as follows:—

Contrary to expectations, the infestation of codlin moth is very slight, some farms being almost clear where last season there was a heavy infestation. Spraying has been thoroughly carried out, and bandages thoroughly inspected, but very few grubs were in evidence.

Probably the heavy floods during the winter months which lay for some weeks in places on the farms, may have killed out all larvae harboring round the roots of the trees; anyhow, where a heavier infestation generally shows up owing to shortage of crop, this season farms are singularly clear, many bandages not showing a single grub.

On one farm where a particularly good crop of Apples is showing, two different parasites were found, and it was evident that a considerable number of larvae had been destroyed by these, and it is hoped that these valuable parasites may increase in numbers and become well established on the area.

With a light crop, and small infestation of codlin and with the early stripping of the trees, there should be a marked decrease in this serious menace to pome fruits.



An Ortho (VOLCK) Product for Every Orchard Pest

Read Captain D. B. Halhed's opinion of VOLCK:—

"I have been using various sprays for many years with very varying results. I don't think anything—even the price—will induce me to give up Volck. It only costs me 4d. per case to have clean fruit. I am acting on Mr. Volck's advice and using Sulphur for Thrips this next season.

Yours sincerely,
(Signed) Duncan B. Halhed."

VOLCK is manufactured in Sydney and Melbourne.

Volck's products are VOLCK, ORTHOL-K, KLEENUP (a dormant white oil spray), Lead Arsenate, etc.

Write for literature concerning KLEENUP. This can be combined with Lime Sulphur Solution, Bordeaux Mixture or Nicotine Sulphate.

Victorian Agents—H. C. Pannifex & Co., 26 Market Street, Melbourne.

New South Wales Agents—Australian Fruit and Produce Co. Ltd., 6 Ultimo Road, Sydney.

Tasmanian Agents—W. H. Ikin & Son, Hobart.

South Australian Agents—Silbert, Sharp & Bishop, Rundle Street, Adelaide.

Queensland Agents—Australian Fruit and Produce Co. Ltd., 6 Ultimo Road, Sydney, N.S.W.

West Australian Agents—Paterson & Co., Perth.

PERSONAL.

Mr. H. Chilvers, who was fourteen years with Messrs. Victor Leggo & Farmers Ltd., and for many years filled the position of sales manager of the fruit sprays and sheep dips department of this company, has recently been appointed to the staff of Cameron, Sutherland & Seward Pty. Ltd. as sales manager of their pumps and rural department. This company was recently appointed the principal Victorian distributors of the well-known fumigant, "Cyanogas." In addition to this line, other lines handled by them of interest to orchardists are:—Spray pumps and spray carts, pumps and irrigation plants, pipes and fittings, Buzacott oil engines and electric light sets. We wish Mr. Chilvers all success in his new sphere.

Mr. Fraser-Gandie, the well-known citrus grower of Nyah West, accompanied by Mrs. Fraser-Gandie, will leave on the "Esperance Bay" next month for a tour of England and the Continent. While abroad he will investigate the methods of Lemon preserving in Sicily, and watch the methods used in Smyrna for treating dried fruits. English marketing methods will also receive attention.

Mr. S. R. Bushnell, formerly managing-director of Jaques Pty. Ltd., manufacturers of fruit sprays, has severed his connection with this company. Mr. Bushnell is now paying attention to the production of white lead under a new electric process. This process is an entirely new departure from the accepted methods, of basic lead carbonate or white lead, and considerably reduces the period for manufacture of this product.

Orchard Sprays Pty. Ltd. is a new company formed to manufacture orchard fruit sprays. The manager and secretary is Mr. C. D. Tame, previously with Jaques Pty. Ltd. Associated with him are Mr. D. B. Lattermore and Mr. S. Driscoll, who were associated with Mr. S. R. Bushnell in the manufacture of lime sulphur and other orchard sprays. Mr. Tame was for fifteen years with Mr. F. R. Mellor, and six years with Jaques Pty. Ltd., and is well known amongst orchardists throughout Victoria. The products will be marketed under the "Lion" brand.

NEW COMPANIES.

Adheso Dust and Appliances Pty. Ltd. Regd. office, 422 Collins-street, Melbourne. Regd. January 29. Capital, £600 in £1 shares. Names subscribed to memorandum: William Young-Whitforde 1 share, Charles Henry Frazer 1 share.

Box Hill Markets Pty. Ltd. Regd. office, Box Hill. Regd. January 29. Capital, £2,000 in £1 shares. Names subscribed to memorandum: Iliffe Gordon Anderson 1 share, Clements Langford Pty. Ltd. 1 share.

Federal Fruit Supply Pty. Ltd. Regd. office: Armstrong-street, Ballarat. Regd. February 3. Objects: To acquire the business of fruit and vegetable dealer carried on by Reginald Albert Hubbard. Capital: £2,000 in £1 shares. Names subscribed to memorandum: Reginald Albert Hubbard 1 share, Arnold Clifford Hubbard 1 share, Edith Mary Cecilia Hubbard 1 share, William Joseph Perrett 1 share, Allan Alfred Vassie 1 share, Doris Ivy Lowman 1 share.

THE PORT of HULL

is

The Fruit Centre

SERVING

Great Britain for the North & Midlands & Continent for all Ports in Northern and Eastern Europe

Daily sailings provide unrivalled situation for re-export of EMPIRE FRUIT

Specially constructed REFRIGERATOR VANS carry FRUIT direct from STEAMER to inland destinations by EXPRESS TRAINS

RAPID HANDLING QUICK DESPATCH LOW CHARGES

London & North Eastern Railway

LARGEST DOCK-OWNING RAILWAY IN THE WORLD

Full information supplied by:—

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NEW ZEALAND.—J. A. Redpath & Sons Ltd., 181 Cashel-street, Christchurch, and Branches.

MERBEIN RESEARCH STATION.

A meeting of the Advisory Committee of the Commonwealth Research Station at Merbein, was held recently, those in attendance being Mr. D. Gordon (chairman), A. Lever, S. P. Bromfield, D. C. Winterbottom, J. A. Loch-head, and A. V. Lyon, Secretary.

The chairman explained that the financing and control of the work of the station was now in the care of the Council for Scientific and Industrial Research.

The Secretary reported that the standardisation of methods of processing fruit had been undertaken with considerable success. Investigational and advisory work in the processing and drying of Apricots, Peaches, and Grapes, was receiving attention.

The committee then inspected the layout and irrigation methods of the experimental fields of the Research Station.

The chairman, Mr. Gordon, was asked to convey the good wishes of the committee and staff to the Griffith (N.S.W.) Research Station.

Apple crops are light at Strathfieldsaye owing to thrips infestation. A well-known grower, Mr. T. Somerville, states that codlin moth is gradually becoming immune from arsenical spraying. Stronger mixtures are now necessary. The grubs appeared to be able to rub off the poison coating and to enter the fruit safely.

The Red Hill Agricultural and Horticultural Society will hold a show on March 23. The Secretary is Mr. H. W. Amos, who will be pleased to supply particulars to those interested.



No. 9 Spraying Machine

The Most Extensive
Manufacturers in the
British Empire of

**RUBBER
STAMPS**

Stencils, Marking Devices,
Inks & Acme Stamp Pads

We make a Big Range of Special
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We also Manufacture and Supply
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for All Purposes

Let us know your requirements, and we will
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LION BRAND.



Orchard Sprays

We manufacture a complete range of
sprays for the orchardist, including:

ARSENATE OF LEAD (PASTE)
ARSENATE OF LEAD (POWDER)
LIME SULPHUR
WHITE OIL EMULSION
PREPARED RED OIL
BORDEAUX MIXTURE
BORDEAUX COMPOUND
SPREADERS (SPECIAL)
CASEINATE
SPREADER (ORDINARY)
CALCIUM CASEINATE, ETC., ETC.

All sprays will be manufactured from the same formulae as previously used by Mr. S. R. Bushnell whilst associated with Jaques Pty. Ltd. Orchardists can therefore rely upon getting the best quality fruit sprays.

Write for prices and particulars to:

ORCHARD SPRAYS PTY. LTD. 9 Cremorne Street, Richmond

BICKFORD'S "AERO" BRAND ARSENATE OF LEAD.

Messrs. A. M. Bickford & Sons Ltd., manufacturing chemists, of Adelaide, South Australia, have been manufacturing arsenate of lead for over 25 years. Their product is widely known in their own State, but they are comparative newcomers in the other States of the Commonwealth. Recently, however, they completed a chain of agencies which now embraces all the States, and "Aero" brand arsenate of lead is now obtainable in any part of the Commonwealth.

Coincident with a marked improvement in their methods of manufacture, Messrs. Bickford & Sons erected some four years ago an extensive new plant solely for the manufacture of their arsenate of lead. At the time, this was designed to produce a much larger output than they enjoyed at that time, but within these four short years, their sales have outstripped the capacity of this new plant, and they recently found it necessary to enlarge it. This speaks well for the quality of this brand of arsenate of lead, the orchardist being quick to sum up the good or bad points of a product which stands between him and the ravages of codlin moth.

We print here an interior view of the modern up-to-date plant at Messrs. Bickford & Sons. Particulars of their interstate agencies will be found in our advertisement columns.

Over-ripe!

Mrs. Jehones: "Three of these Apples you sent me were rotten—I am bringing them back."

Fruiterer: "That's allright, madam—you needn't bring them back, your word is just as good as the Apples."



A view of Bickford's new arsenate of lead plant, showing the giant filter press, where arsenate is separated from the water. Trays containing the cakes, as fed to the drying rooms, are seen on the right of the picture.

AUSTRALIAN APPLE AND PEAR EXPORT.

The 1932 Apple and Pear export season commenced in mid-February, with the shipping of Pears.

The quality of the fruit in the several States is excellent. The estimates for the fruit shipping season are as follows (bushels): Tasmania 2,750,000, Victoria 250,000, S. Australia 400,000, W. Australia 600,000.

Difficulties were met with in arranging the programme of steamers, but by careful planning these have been largely overcome.

Empire Preference

—is now more than a political catch-phrase. It is business in £ s. d., and Australia can build trade on the markets of the Empire that will bring in the tide of prosperity. We must not expect the full benefits of tariff preference unless we meet the requirements of the Empire buyer and deliver the right goods packed in the right way.

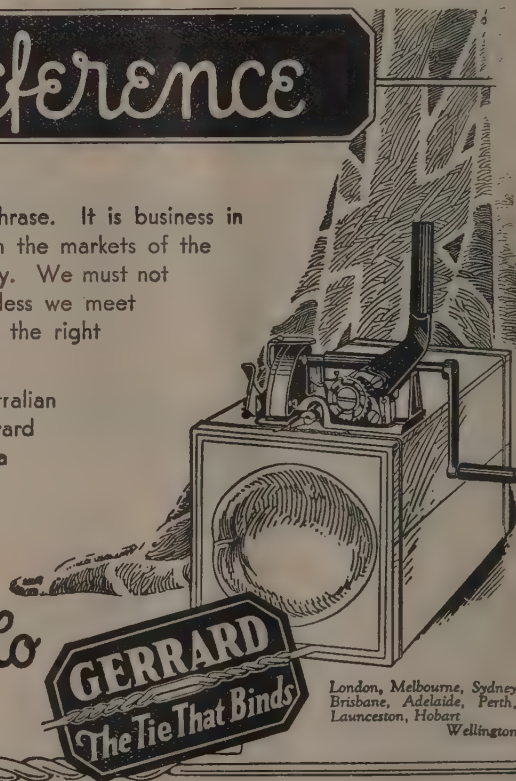
Each year upwards of twenty million packages of Australian products are wire-strapped for safe transport with Gerrard Wire-seal Strapping. The small additional cost gives a guarantee of safe transport and buyer-satisfaction.

Our special packing service men are at your disposal without cost or obligation.

Gerrard Wire Tying Machines Co

PTY. LTD.

119-125 HAWKE STREET, WEST MELBOURNE.



PEAR EXPORT.

Doncaster.—By mid-February most of the Williams Pears for export had been picked and placed in cold storage. The crop is on the light side, but the quality is excellent. Howells and Packhams were also picked in February.

Williams Pears in Goulburn Valley were packed for export in the West Doncaster cool stores. Up to February 20, 10,000 cases were packed. Several consignments are being shipped to Malay, including about 6,000 cases of Packham Pears with a small quantity of Catherine Ann Peaches.

It is expected that between 25,000 and 30,000 cases of Pears will be exported from the Goulburn Valley this season. The quality of the fruit is particularly good and free from codlin and infestation.

The freedom from codlin is attributed to the strict enforcement of regulations respecting orchard hygiene during the winter, and the use of oil-arsenate spray.

GRAPE PACKING.**Free Pamphlet Available.**

An informative pamphlet dealing with the proper packing of Grapes has been issued by the Victorian Department of Agriculture. The pamphlet, which has been compiled by Messrs. F. de Castella, Government Viticulturist, and B. Krone, Fruit Packing Expert, reviews the essential points in the growing and picking of Grapes, and the various packs in use are described in detail. The information given should be of interest to all concerned in the sale of table Grapes, whether for the local market or for export. Copies may be obtained, post free, on application to the Director of Agriculture, Treasury Gardens, Melbourne.

Ardmona.—At the annual meeting of shareholders of the Ardmona Fruit Products Co-op. Company Ltd., held on January 11. Messrs. V. R. McNab and J. C. Turnbull, the retiring directors, were re-elected unopposed.

The chairman said that the affairs of the company had improved materially, and the prospects for the future were bright: the present year was one in which those who packed a good quantity of canned fruits should reap considerable benefit from the improved market conditions.

Fruit from Merbein.—For the 41-week period ended February 13, 153,021 cases and 2,171 bags were dispatched, consisting of 136,858 cases and 2,072 bags of Oranges, 5,750 cases and 99 bags of Lemons, 7,008 cases of Mandarins and 3,405 cases of Grapefruit. These figures are from 50 per cent. to 100 per cent. higher than the consignments in the similar period last season.

DRIED FRUITS ACTION.**Leave to Appeal Refused by High Court.**

ON behalf of the Dried Fruits Board of South Australia, the Crown Solicitor of South Australia (Mr. Hannan) applied to the High Court for leave to appeal from a judgment of the Full Court of South Australia in dismissing an appeal from a judgment of Mr. Justice Angus Parsons. Frederick Alexander James, who has previously been concerned in litigation with the Dried Fruits Board, had asked for a declaration that a purported cancellation of the registration of his fruit packing shed, under section 26 of the Dried Fruits Act was invalid. Mr. Justice Parsons held that it was invalid, and the Full Court dismissed an appeal.

The application for leave to appeal was refused.

CALCID BRIQUETTES for CITRUS FUMIGATION



Consistently give the
Highest Percentage Kill
of any proprietary fumigant or spray and
Effectively Control Red Scale

"MAKE THEIR FIRST SMELL A STRONG ONE."

Maximum concentration is obtained within two minutes, and before the gas has time to leak through the tent it gets its full strength to work on the scale. You give your car, truck or tractor a quick-combustion gas which does its work without leakage of power. Apply the same principle to fumigation.

50,000 trees will be fumigated on the Murrumbidgee Irrigation Area this Season with Calcid Briquettes.

Australian-made BRIQUETTE Machine, £8/17/6.
Sales Tax paid, free on rail any Capital City.

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12 T. & G. Bldg.

The Fruit Trade

Market Reports and News Items

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS.

Advertising in this Journal.

Sydney: NEW SOUTH WALES.

Chilton, F., City Fruit Markets.

Melbourne: VICTORIA.

Bell, Banson Pty. Ltd., Wholesale Fruit Market.
Cave, F., & Co. Pty. Ltd., Wholesale Fruit Market.
Davis, J., Pty. Ltd., Wholesale Fruit Market.
Frankel, H. & S., Wholesale Fruit Market.
Lister, G., Pty. Ltd., Wholesale Fruit Market.
Lucas, D. S., 132 Franklin Street, Melbourne.
Millis, A., & Sons, Wholesale Fruit Market.
McLean, N. N., Pty. Ltd.
Mumford, J. G., Wholesale Fruit Market.
Pang & Co. Ltd., H. L., Wholesale Fruit Market.
Patrikeos, P. A., Wholesale Fruit Market.
Producers' Dist. Society, Wholesale Fruit Market.
Ross, J. W., Wholesale Fruit Market.
Sang Goon & Co., Wholesale Fruit Market.
Silbert, Sharp & Davies, Wholesale Fruit Market.
Stott & Sons, T., Wholesale Fruit Market.
Tim Young & Co. Pty. Ltd., Wholesale Fruit Market.
Tong, W. S., Wholesale Fruit Market.
Tear, F. W., 49 William Street.
Wade, H. M., & Co., Wholesale Fruit Market.
Wilson, H., Pty. Ltd., Wholesale Fruit Market.
Wing, R. A., & Co., Wholesale Fruit Market.
Wing, Young & Co., Wholesale Fruit Market.
Woolf, G., Wholesale Fruit Market.
Wholesale Fruit Merchants' Assn., J. D. Fraser, Temple Court, 428 Collins Street, Melbourne.
Young, J. H., & Co. Pty., Wholesale Fruit Market.

Brisbane: QUEENSLAND.

Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Comino Bros. Ltd., Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
Whitton, W. J., & Co., Fruit Markets.

Hobart: TASMANIA.

E. R. Cottier Pty. Ltd., Temple Place, Macquarie Street.
Jones, H., Co. Ltd., Fruit Exporters.
Peacock, W. D., & Co., Fruit Exporters, and at London.

Launceston: BENDER & Co. Pty. Ltd., 100 Elizabeth Street.

Dunedin: NEW ZEALAND.

Co-operative Fruitgrowers of Otago Ltd.

London: GREAT BRITAIN.

Pask, Cornish and Smart, London.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Poupard, T. J., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.

Hull: The Port of Hull, London and N.E. Railway. Rep. Burns, Philp & Co. Ltd., 7 Bridge Street, Sydney.

Manchester: The Port of Manchester Rep., W. J. Wade, 8 Bridge Street, Sydney.

Liverpool: Johnson, T. S., & Co.

Bremen: GERMANY. Fruchthandel, Gesellschaft.

Hamburg: Aszheimer, P. H., & Son, Fruchthof. Gustav Bey, Hamburg. Int. Fruit Import Gesellschaft. Lutten, J. H., & Sohn, Hamburg. Stier, Aug., Fruchthof. Timm & Gerstenkorn.

Copenhagen: DENMARK. International Fruit Import Co.

NEW SOUTH WALES.

Sydney (20/2/32).—Mr. L. T. Pearce, Market Representative of the Fruitgrowers' Federation of N.S.W., reports prices as follows:—Apples—Grav., large 9/- to 10/-, medium 8/- to 9/-, small 7/- to 8/-; Jon., 10/- to 12/-, med. 9/- to 11/-, small 8/- to 9/-; McIntosh Red, 8/- to 10/-; cooking, Cleo., large 8/- to 10/-, med. 7/- to 9/-, small 5/- to 7/-; Five Crown, large 8/- to 10/-, med. 7/- to 9/-, small 5/- to 7/-; Pears—B. de Cap, 2/- to 6/-; Williams (all States), large 6/- to 7/-, med. 5/- to 6/-, small 4/- to 5/-; Apricots, 4/- to 6/- half-case. Bananas, Norfolk Island, 6/- to 10/- tropical case; N.S.W. and Queensland, 8/- to 16/-. Citrus—Val., 7/- to 12/- case; 2nd crop, 2/- to 9/-; common Oranges, 2nd crop, 2/- to 7/- case. Grapes, Black Hamburg 4/- to 7/- half-case, Black Muscat 4/- to 9/-, Waltham 4/- to 7/-, White Muscat 5/- to 12/-. Quinces, to 8/- bush. case; Mangoes, 10/- to 18/- per bushel; Nectarines, 6/- to 8/- half-case. Peaches—Lady Palmerston, Orange Cling and Gipsy Queen, 8/- to 12/- bush. case; Admirable and Elberta (N.S.W.), 4/- to 8/- half-case; Princess Royal, 6/- to 8/-. Pineapples, all counts, 7/- to 10/-. Plums—Black Diamond, 8/- to 12/- bushel; Grand Duke (Vic.), 8/- to 12/-; President, 6/- to 7/- half-bushel; Diamond, 6/- to 7/- half-bushel; Jefferson, 6/-; Grand Duke (Tas.), 5/- to 6/- half-bushel; President (N.S.W.), 7/- to 10/-. Passion Fruit, 3/- to 6/- half-case, few to 9/-.

WESTERN AUSTRALIA.

Perth (19/2/32).—Apples—Jon., flats 3/6 to 7/- (others from 2/6); dumps, 4/- to 8/- (special to 11/-, others from 3/-); Dunns, 3/- to 5/-, 3/6 to 7/6; Cleo., 2/6 to 5/-, 3/6 to 6/6; other vars., 4/- to 7/-. Citrus—Val., 6/- to 10/-, 7/6 to 12/6 (special to 14/-); Lemons, 8/- to 12/-

(others from 6/6). Stone Fruit—Plums, all varieties, flats, 6/6 to 11/- (special to 12/3); Peaches, 10/- to 17/- (others from 6/-). Pears—Bartlett, flats 2/- to 4/6, dumps 3/- to 6/6 (special to 9/-); other varieties, 1/6 to 3/6. Grapes, open, white, 2/3 to 4/6; colored, 3/- to 5/6, closed 1/6 to 3/-. Passion, 8/- to 10/-; Tomatoes, 2/- to 4/-.

SOUTH AUSTRALIA.

Adelaide (26/2/32).—Apples (eating), 4/6 to 5/- case; do. (cooking), 4/-; Figs, 7/- case; Grapes (dark), 8/-; do. (white), 8/-; Lemons, 12/- to 13/-; Oranges (common), 10/- to 12/-; Peaches, 7/-; Pears (eating), 2/6 to 3/6; do. (cooking), 2/6; Pineapples, 4/-; Plums (light), 5/-; do. (dark), 5/-; do. (Damson), 7/-; do. (Jap.), 7/- to 8/-; do. (Prunes), 5/- to 6/-; Quinces, 4/- case.

QUEENSLAND.

Brisbane (26/2/32).—Pineapples, Ripleys, 5/- to 9/- case; smooth leaf, prime, 3/6 to 5/- case; Plums, best, 8/- to 11/-; others, 3/6 to 5/-; Passion Fruit of the better grade, 6/- to 9/- case; second grade, 2/- to 3/- case. Apples—Jon., 2½ in. to 2¾ in. 6/- to 10/-, 2½ in. 5/- to 7/-, 2 in. 4/- to 6/-; Grav., 6/- to 9/-; G. Smith, 6/- to 10/-; Munros, 5/- to 7/- case; small size Apples, 4/- to 6/- case. Pears, 5/- to 9/- case; local Oranges, 2/- to 9/- case; Quinces, 4/- half case; local Lemons, 6/- to 8/- case; Vic. William Pears, 9/- to 11/-; Caps, 7/- to 9/- case; southern Lemons, 15/- to 18/-; Grapes, Muscatels, 4/- to 6/- case; Black Prince, 4/- to 4/6; G.C., 4/- to 5/-; Waltham, 7/- to 9/-; white Grapes, 4/- to 5/-; Peaches of a special class sold from 8/- to 10/- per case, and other sorts from 4/- to 6/-.

VICTORIA.

Melbourne (27/2/32).—Fruit generally was in better request; late prices remained firm; Grapes and Bananas were dearer. (Except where otherwise stated, the quotations are at a bushel case.) Apples—Eating 6/- to 9/-, cooking 4/- to 7/-. Figs, 4/- to 8/-. Grapes—Raisin de Dames, 6/- to 8/-; Muscatels, 8/- to 10/-; Waltham Cross, 8/- to 12/-; Red Malagas, 6/- to 10/-. Oranges—Valencias, standards, North-Eastern district, 5/- to 7/-, with lines below standard grade difficult of sale at 5/-. Mildura and Murrabit stands, 11/- best counts; selected wrapped Mildura and Murrabit, 12/- to 13/-, best counts. Lemons, good, standards, best counts, to 9/-; few selected lines, 10/- odd sales; special lines to 11/- to 12/-; Strawberries, 6d. to 1/- a punnet. Peaches—Elbertas, 5/- to 6/-; white-fleshed, 8/- to 10/-. Pears—Culinary, 3/- to 5/-; dessert, 3/- to 6/-. Plums, 6/- to 8/-; Damsons, 8/- to 10/-. Bananas, 15/- to 20/-. Pineapples, 10/- to 12/-. Passion Fruit—Sydney, 7/- to 9/- half-case; local, to 16/- a case. Melons—Water, 4/- to 8/- a dozen; Rock, Cantaloups, 4/- to 6/- case; preserving, 5/- to 9/- a dozen. Tomatoes, 3/- to 5/-; Portlands, 5/- to 7/-. Cucumbers, 2/- to 4/-.

RETAIL FRUITERERS' ASSOCIATION.

The monthly meeting of the Executive of the Melbourne and Metropolitan Retail Fruiterers' Association was held in the Temperance Hall, Melbourne, on February 4: there was a full attendance of delegates.

Several delegates spoke of the great amount of Pears on the market affected with codlin moth, and the Secretary was instructed to draw the attention of the inspectors to the matter.

Reference was also made to the assistance rendered by the "Age" to put a stop to some of the dishonest practices carried on in the fruit trade at the Victoria Market and other places, and a resolution was carried unanimously thanking that paper for its efforts to improve the industry and all concerned with it.

A letter was also received from the Victorian Fruit Council, outlining the good work being carried out by Mr. J. P. Gibson in his "Eat More Fruit Campaign."

The Secretary was instructed to get in touch with as many retail fruiterers as possible in the country with the object of increasing the activities of this Association.

Reference was also made to the activities of the thieving brigade at the market of late, and special praise was bestowed on Messrs. Patterson and Richards for the excellent work they are putting in to clear the market of these pests, also pickpockets, who have been operating lately.

Remarks on Trade.

There is nothing very brilliant to report in connection with the retail fruit trade. Prices of Peaches and Plums have remained at high levels, and consequently the sales have been very restricted. Other fruits, although at a very reasonable price, are also selling very slowly, the whole trouble, of course, being that the public cannot purchase freely, and there does not seem much chance of improvement for some time yet. Lemons have improved in value with the recent weather, and are likely to remain firm. There are plenty of Apples coming forward to meet the demand. Cooking varieties are very good, but there has been some very inferior Gravensteins marketed a week or two back; however, they are improving very much of late.

Tomatoes are coming along from all quarters now, and the quality of some of the nearer grown ones is excellent.

The Retail Fruiterers' annual picnic will be held on March 9, and growers would be wise not to send too much for that day.—E. W. Thompson, Secretary Melbourne and Metropolitan Retail Fruiterers' Association.

CITRUS MARKETING BILL.

Rejected by Growers in South Australia.

The Citrus Marketing Act, which passed both Houses in South Australia, was submitted to growers in early February for a postal ballot as to whether the Act should become law.

On the votes being counted it was found that a considerable majority opposed the measure. Because of the negative vote the legislation is void.

New season's Tasmanian Apples, packed in the new kiln-dried and smoothly planed case, made their appearance at the Melbourne Wholesale Fruit Market at the end of February. They attracted much attention, and favorable comment. A consignment of Gravensteins grown by F. G. Bruford, Norman Vincent, sent through the Tamar Valley Co-operative Coy., to Geo. Lister Pty. Ltd., was well packed and opened up in good condition. The cases were made at Westbury. A consignment of Worcesters grown by Bruce Bros. and H. Dean, of Tamar Valley, consigned to H. Louey Pang, in similar cases, was also well packed, and opened up in good condition. The market was dull owing to unfavorable weather conditions and new season's Apples were being sold at 8/- to 10/- case.

* * * * *

Mr. J. R. Vail, of Geo. Lister Pty. Ltd., has returned from a visit to Tasmania. Mr. Vail made a tour of the orchards, and interviewed many growers who have been doing business with the firm for years. He also established new business connections.

Fruit Trees and Water.—Mr. Mason, of the firm of J. W. Ross, fruit merchants, Melbourne, referring to the heavy losses in early Peaches from the Goulburn Valley because of brown rot, expresses the opinion that too much irrigation water is supplied to the trees. Last season many trees died out because of excessive wetness in the winter. Growers, he thought, made a mistake in supplying irrigation water when the trees did not need it. The idea appeared to be, "We have got to pay for the water—let's use it," so waterings were given sometimes quite unnecessarily to the detriment of the keeping quality of the fruit.

South Australian Gravenstein's made their appearance on the Melbourne market during the first week in February. There was a fair sale for them, despite their smallness and lack of color. Early lots realised up to 13/- case.

Mr. Davis has been appointed sales manager of the fruit sprays and sheep dips department of Messrs. Victor Leggo & Farmers Ltd.

Mr. H. Banner, of Blyth Chemicals, recently returned from a trip to Tasmanian orchards. He was very much impressed with the excellent crop of fruit showing in that State, and the state of the orchards generally. The Tasmanian distributors of "Blue Bell" sprays are Messrs. W. D. Peacock & Co., Hobart; F. H. Stephens Ltd., and H. Jones & Co. Ltd., Launceston.

Hydraulic engineers have approached Mr. Everard Brickhill, patentee of the Gay Rotary Sprinkler, with a view of connecting his rotary sprinkler system to portable pipes for the purpose of irrigating tobacco plants.

The Melbourne Chinese Fruit Merchants' Association has been affiliated with the Employers' Federation, and all members are now guaranteed by a fidelity bond, either through their banks or insurance companies.

Mr. J. M. Jacobs, who was connected with the firm of Geo. Lister Pty. Ltd. for many years, is now doing business on his own account at the Melbourne Wholesale Fruit Market.

BANANA PLANTING IN NEW SOUTH WALES.

Acreage Now a Record.

UP TO THE END OF JANUARY 739 acres of Bananas, totalling 258,860 plants, have been set out in the Coff's Harbour district. It is estimated that when the final figures for the 1931-32 planting are available, the State will have about 8,000 acres under Bananas. Even after making allowance for the areas which have recently gone out of cultivation, there is an increase of about a thousand acres over the previous year's figures.

The Director of Fruit Culture (Mr. C. G. Savage) states that planting must now be confined to the best of land as the prices for the low quality fruit will not give payable returns.

The bumpy-top regulations are to be strictly enforced, and it has already been found necessary to have one or two unsatisfactory plantations destroyed.

SOUTHERN FRUITGROWERS' ASSOCIATION.

At a meeting of the Executive of the Southern (Victoria) Fruitgrowers' Association, held on February 4, Mr. W. A. Thiele presided in the absence of the President. There were also present Messrs. O. White, A. Leber, G. Fankhauser, and the Secretary, J. W. Aspinall.

Mr. Thiele reported that at the recent Citrus Growers' Conference the proposed Marketing Bill was negatived, and a motion carried in favor of a compulsory levy on citrus fruits. It was decided to write to the Citrus Association stating that the southern growers were strongly opposed to a levy and would take all legitimate means to protect growers' interests.

SOMERVILLE SHOW

Wednesday, 16th March, 1932

Victoria's Premier Fruit Show

Exhibits include—

Fruit, Vegetables, Flowers, Fancywork, Cookery, School-work, Cattle, Horses, Poultry, Dogs, Etc.

Full particulars from—

T. J. PEARCE, Secretary.

CLENSEL

Insecticide and Fungicide

BRITISH PRODUCT

Information from—

BRUCE ANDERSON,

15 Loch St., Camberwell, E.6.

Tel. W 3324

Messrs. Thiele, Fankhauser and the Secretary were appointed to attend the Conference re thrips scourge.

A report was received from the Victorian Fruit Council detailing the valuable work accomplished by Mr. J. P. Gibson in his "Eat More Fruit" campaign.

The Secretary was instructed to closely watch developments re the proposed Motor Transport Bill, which it was thought would be very harmful to primary producers.

NEW SOUTH WALES.

Royal Easter Show.

THE EASTER SHOW of the Royal Agricultural Society of New South Wales is to be held on March 21 to 30, 1932. This exhibition will include fine shows of stock, magnificent displays of agricultural and other primary products, with a beautiful horticultural show.

There will also be many attractive ring events. The Secretary is Mr. G. C. Somerville, 33 Macquarie-place, Sydney, N.S.W.

L. P. ROSÉN & SON

Are now booking Orders for

All Kinds of Fruit Trees, including Citrus, of which 150,000 are available, on Lemon, Orange and Trifoliata Stocks, in first-class, extra well-grown stuff, budded from selected orchards of best bearing types.

We can also offer some 25,000 Valencia, 15,000 Washington, 2,000 Eureka, 2,000 Marsh, and 2,000 Emperor, grown from buds supplied by the N.S.W. Bud Selection Society.

Quantity Prices Freely on Application.
Catalogues post free.

SPECIALITIES:—

Fruit Trees, Rose Plants and Kunde Secateurs.

Fernhill Nurseries

Pennant Hills Rd, Carlingford, N.S.W.

Rockhampton

The starting point for the Great Queensland Central Railway has a population of 30,000, and offers a good market for your fruit.

ORCHARD FRUIT SUPPLIES

offer a prompt and reliable selling service. Best Prices. Prompt advices and returns.

Reference:—Australian Bank of Commerce.

'Phone: 1584.

P.O. Box, 223. Brand: ORCHARD RTON.



Codlin Moth Control

No Single Pest has Cost the Orchardist More

Eliminate Your Losses

Safeguard Your Fruit

Use -- "**Vallo**" Arsenate of Lead (Paste-Powder)

Why is this "Vallo" product so universally popular?

BECAUSE OF ITS—

WONDERFUL FINENESS,
SUPERLATIVE QUALITY,
OUTSTANDING SUSPENSION,
REMARKABLE KILLING POWERS.

"Vallo" Prepared White Oil

A spray which will kill the codlin moth eggs before they hatch. Unlike White Oil Emulsions, this product contains no added water.

The many tests which have been conducted with this ideal spraying specific have proved, beyond doubt, the many advantages of this oil, when used in combination with Arsenate of Lead for the calyx and cover sprays, and thereafter in accordance with directions.

Victor Leggo & Farmers Ltd. - Melbourne

N.S.W. Distributors—A. Victor Leggo & Co. Pty. Ltd., 9 Phillip Street, Sydney.

Queensland Distributors—A. Victor Leggo & Co. Pty. Ltd., 72 Albert Street, Brisbane.

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ORCHARD and
VINEYARD
IMPLEMENTS

"Satellite" No. 80

One-Horse
Hoe.

Leverless, Slide
Adjustment.



Frame expansion, 12 to 30 inches.
Spring steel throughout. No wood.

Price £2/5/-

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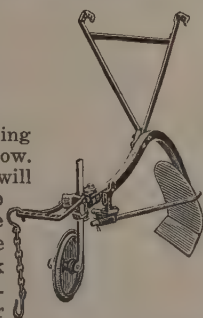


Frame expansion, 17 to 27 inches.
Lever Controlled. An advantage in
unevenly spaced rows of plants. Has
depth regulating levers. Hillers and
Points as shown above.

Price £3/8/6

"Sunvine"

Mouldboard
Plough.



No back - breaking
hand hoe work now.
The "Sunvine" will
plough the strip
right under the
vines, while horse
and man walk
clear. Spring-
mounted fender
keeps share from striking vine stems
or posts. Turns furrow 10 inches
wide.

Price £4/5/6

These are the net cash prices for delivery on truck, Sunshine. Write for General Catalogue and Price List

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To Beginners in Poultry-Farming.

A Seasonable Warning.

DISCUSSING the importance of good development in young stock and the advisability of culling out any backward and unthrifty chickens, the Poultry Expert of the N.S.W. Department of Agriculture takes the opportunity of warning newcomers to the industry against the purchase as the nucleus of their flock of chickens of the above-mentioned class.

Those beginning in poultry farming often attempt to take a short cut to obtain some income by purchasing pullets or hens, observes the writer, and at this time of the year often end up by securing a number of chickens of the class referred to at what appears to them a cheap price, but when such birds have to be kept for many months before they commence to lay, it is realised that they are expensive at any price. It can be taken as definite that any pullets worth buying at this time of the year cannot be bought cheaply, and even where good early pullets are purchased the buyer cannot depend upon them for a regular income before the middle of the year, because with a change of conditions and management many of them will be almost certain to break into a moult which will put them off laying for at least a couple of months. Again, young stock are likely to contract chicken-pox at any time between now and the end of April, and this will cause a moult and cessation of laying for a similar period. In fact, the purchaser of pullets at this time of the year will be very fortunate if his birds pay for the cost of food before June.

Much the same applies to the purchase of hens, for they would mostly break into moult after being moved from one farm to another, and would not then lay again as early as the pullets. Another disadvantage in buying hens is that their age cannot be definitely determined, and if second-year birds were bought instead of those fifteen to eighteen months old, they would not pay to keep if they broke into a moult. It will be seen, therefore, that it is not a matter of just buying a flock of birds and being assured of an income at once.

Similar conditions would be met with in the case of a person buying a stocked poultry farm during the next month or so, as any alteration in feeding and management of the birds would have the same result, and even under the most favorable circumstances only a very small return could be expected before the spring owing to the fact that this is the period of low production.

POULTRY FARMING FILM.

A very educational film dealing with every branch of commercial poultry farming and featuring activities on some of the best equipped farms in Victoria and New South Wales was exhibited at a private screening given at 3DB Studios on Monday, February 22. The Chief Poultry Expert for Victoria (Mr. W. C. Rugg), and the Assistant Expert (Mr. Clinton), the State Secretary of the N.U.P.B.A. (Mr. W. A. Williams), several prominent breeders and the Editors of the poultry press were present by invitation of the Shell Company.

The film, which is 3,000 feet in length, was taken in sections on six different commercial poultry farms, and is annotated in such a way as to make it of great educational value. It will shortly be released on Melbourne and suburban circuits, and it is hoped that it will later be screened overseas.

The Shell Coy. prepared the film, and is to be congratulated upon its enterprise.

A DASH OF KARSWOOD Makes all the Difference to the EGG YIELD



THE manufacturers of Karswood Poultry Spice do not ask you to accept their word that Karswood is a wonderful egg-producer. They know that the public is always rather sceptical about the claims of a manufacturer for his product. That is why their policy is to publish statements of those best entitled to speak—those people who have used and tested the product. This policy makes the advertisement writer's task an easy one—he can let the other fellow do all the talking.

And the letter below is an example of the way they do talk. Thousands of these letters are received annually, and they all tell the same story: Increased egg-production with Karswood. Yet Karswood does not force, because it contains no forcing ingredients such as cayenne pepper, gentian, chillies, etc.; but it does contain ground insects, the birds' natural tonic stimulant.

"Wonderful Increase In Egg Output."

Gentlemen,

I have used Karswood in England when I was only a "Backyarder." I came out here some 8 years ago to take up Poultry and Pigkeeping. I now have a small flock of 70 hens—about 65 White Leghorns and 5 Black Orpingtons, in their 2nd and 3rd seasons. I keep them in a large run—about ½ of an acre, and let them out for a run every day for two hours or so. I took up Karswood again on the 26th June of this year. I feed 8 lbs. of pollards wet in the morning with your allowance of spice, and 8 lbs. of wheat at night. After some 8 weeks of this I have had to reduce these quantities to 6 lbs. each. In addition they get a good picking of grass etc. when they are let out, and twice a week they get all the vegetable trimmings from my small stock. Up to the present I have noted the egg yield as follows:—

	Last Year	This Year
June - - -	253	92
July - - -	242	497
August - - -	679	1166

(The number of hens was the same both years—in fact they are the same birds.) To date the yield for September is in excess of last September; but will write later.

Yours faithfully,

(Sgd.) G. GUMPRICH, Pinjarra,
Western Australia.

17/10/29

NOTE THE ECONOMY.

- 1/- Packet supplies 20 hens for 16 days.
- 2/- Packet supplies 20 hens for 32 days.
- 13/- (7lb.) tin supplies 140 hens for 32 days.

SUPPLIES.

Karswood Poultry Spice is obtainable from all wholesalers and stores at the following standard retail prices:—
½ lb. packet, 1/-; 1 lb. packet, 2/-; 7 lb. tin, 13/-; 14 lb. tin, 25/-; 28 lb. tin, 48/-.

KARSWOOD
■ POULTRY SPICE ■

Increases Egg-Production Without Forcing.

DUCK FARMING.**Questions:**

"C.H.S." (Kooyong) writes:

I am starting a duck farm with Khaki Campbells this year and hope to have about 1,000 layers within 12 months. Could you tell me the best and most profitable way to sell my eggs? If you have the figures, could you give me, roughly, the average price last year of Khaki Campbell eggs?

Answers:

(1) The most profitable way to sell duck eggs is to try and dispose of them to private customers, or if that is found impossible, try the dairy produce shops. If that fails, you will have to sell at auction, and the price of duck eggs is always 1d. below hen eggs.

(2) The average price of duck eggs for 1931 was 9d. per dozen. Egg prices for 1931 were below the average in past years.

(Answer kindly supplied by Mrs. K. and Miss E. Smith, Fawkner.)

May we also refer enquirer to article on Duck Raising in our February number? It contains a lot of good information.—Ed.



Mr. H. H. Calvert's (Nar-Nar-Goon) winning Pekin Drake at the Korumburra Show.

BAVE-U Power Sprayer

The best and most reliable sprayer known. Easy to operate—no choked nozzles.

Full particulars supplied with pleasure by the manufacturers

RUSSELL & CO., Engineers
BOX HILL, E.11, VICTORIA.

Mr. S. R. Bushnell wishes to announce that he is no longer connected with Jaques Pty. Ltd., having sold his interests in this Company to Blyth Chemicals Ltd. Mr. Bushnell's address is now: c/o Electrolytic Lead Products Pty. Ltd., 9 Cremorne-street, Richmond.

SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION.

A meeting of the Executive Committee of the S.A.F.M.A. was held at Adelaide on January 29. There were present:—Messrs. H. J. Bishop (Chairman), A. Filsell, J. S. Hammat, F. B. James, D. W. Hannaford, R. O. Knappstein, G. Mack, A. O. Petersen, G. Quinn, J. B. Randell, P. R. B. Searcy, M. Vickers, R. Willsmore, and Secretary. Apologies were received from Messrs. M. G. Basey, R. B. Pritchard, H. N. Wicks.

Export Prospects.—Members considered that notwithstanding adverse weather conditions, there would be approximately 400,000 cases available for export.

Shipping Programme.—As the space allowed by the O.S.R.A. up to January 26 was only for 273,000 cases, it was decided to take up the matter urgently with the Sydney authorities. Particular attention was drawn to the unsatisfactory allocation during March, space being available from March 1—12 93,000 cases, and from March 12—31 only 21,000 cases were provided for.

Conference at Blackwood.—It was decided that a conference be held at the Government Experimental Orchard, Blackwood, on February 18.

Apple and Pear Export Council.—It was resolved to approve of the cable of the Australian Apple and Pear Export Council to the Fruit Trade Federation, London, also that the advertising levy, when fixed, should be borne equally by the grower and exporter in the same manner as the ordinary Association levy. The Council's resolution regarding the limiting the number of exporters and receivers of fruit was not approved.

Thrips Menace.—The question of contributing towards the fund required to increase the staff of the Council for Scientific and Industrial Research for studying the thrips question was referred for consideration at the next meeting of the Research sub-committee.

Research Sub-Committee.—Mr. J. B. Randell reported the codlin moth control experiments were preceding satisfactorily, but the number of moths appeared to be considerably less than the average this year, which was attributed to the unusually hot spell of weather. It had been resolved to make a count of the windfalls, to ascertain the number of affected fruit, from a limited number of trees.

FIELD DAY IN SOUTH AUSTRALIA.

Growers and Exporters Visit Blackwood Experimental Orchard.

UNDER the auspices of the South Australian Fruit Marketing Association, there was a conference and demonstration at the Blackwood Experimental Orchard, South Australia on February 18. Over a hundred fruitgrowers and exporters attended from the main producing districts. The chief Horticultural Instructor, Mr. George Quinn, and the Manager of the Experimental Orchard, Mr. Rodney Fowler, also several Departmental Instructors and Fruit Inspectors were present. Each of the visitors brought specimens of Apples, which were subsequently classified. The visitors then spent an enjoyable time inspecting the experimental orchard under Mr. Fowler's guidance. On reassembling, Mr. Quinn explained the provisions of the Federal Commerce Act, regarding fruit export, and demonstrated from the fruit submitted, what the classifications of the various grades would be, and that Apples showing definite evidence of arsenical spray residue would be rejected. Apples which were sound, clean, well formed, of one size and variety,

and of not less than $2\frac{1}{2}$ inches in diameter, could be classed as special, provided that only 5 per cent. of the fruit were blemished by hail marks or limb rubs. The standard grade provided for a tolerance of not more than 10 per cent. blemishes.

Under plain grade, fruit could be packed which was slightly blemished—such blemishes not to exceed the area contained in a circle having a diameter of half an inch.

Continuing, Mr. Quinn stated that the diameter of an Apple was gauged in the length of a line drawn at right angles to a line drawn from the stalk to the calyx. Inspectors made a distinction between stalks that had been pulled out and those which had dropped off naturally. There was a risk of rejection of fruit if Canadian bushel cases were over bulged. Cases must be packed securely and not too full. One type of case did not carry a full bushel, and anyone branding the words "one bushel" on it, stood a chance of having it rejected. The question of securing a standard pack was one which the Association should consider.

Mr. H. J. Bishop, president of the S.A.F.M.A., thanked Mr. Quinn and his officers for their helpfulness at all times. Mr. J. B. Randell and H. B. Wicks expressed appreciation of the conference and demonstrations, and said that the results would be of the highest value to growers and exporters.

COOL STORES' ASSOCIATION OF VICTORIA.

THE quarterly meeting of the Cool Stores' Association of Victoria was held at Melbourne on February 18. The President, Mr. A. E. Hocking, occupied the chair.

Loss of Weight in Fruit.—A letter was received from Mr. G. B. Tindale, B.Ag.Sc., stating that he was prepared to supervise experiments in regard to the loss of weight in fruit stored under the direct expansion and cool air systems. Various speakers gave their experiences in regard to storage under the different systems. The President and Mr. E. H. Hatfield offered to carry out experiments during the coming season under the two systems. The matter of arranging details was left in the hands of the President and Secretary.

Orient Apple Competition.—A letter was received from the Royal Agricultural Society, indicating that entries for the Orient Apple Competition to be competed for at the Show of the Royal Agricultural Society close on April 10, 1932.

Payment of Interest by Stores.—The Secretary reported the result of discussions with the State Treasurer in regard to deferring interest payments. Although no definite promise had been given by the Treasurer, he (the Secretary) gathered that they had in mind deferring interest on stores not being used or only being used quarter time. Stores working half time or more would probably have to pay the

full amount of interest. The Government was waiting to ascertain the position in regard to the working of stores before deciding definitely. Report received.

The Secretary reported regarding a deputation to the Electricity Commission in connection with the service charged for stores not operating. The Electricity Commission had indicated that the Commission was prepared to give consideration to the waiving of the contract where the store is not functioning for twelve months, provided the company is willing to extend the period of their contract for a further twelve months. In addition, the Commission would allow the machinery to be turned over two or three times a year; the power for this would be charged at an intermittent rate. The offer of the Electricity Commission was considered to be acceptable, and the report was received.

The President reported regarding the work of the Propaganda Committee. He regretted that the campaign could not be extended owing to the lack of finance, as it would result in a considerable increase in the consumption of fruit. He had many practical instances of this. £120 had been raised; the bulk of this had been paid to the organiser, Mr. Gibson. It was decided that the report be circulated to members.

Farmers' Convention.—To be held at Swan Hill on April 13-14. An invitation was extended to all members to be present. Items for the agenda paper should be sent to the Secretary as soon as possible. It was decided to offer the following two items for the business sheet:—(1) That lime used for manurial purposes be exempt from sales tax; (2) charges made by the Electricity Commission for services should be reduced.

Annual Conference.—The Annual Conference of the Cool Stores' Association is to be held at Batlow early in May. The exact date will be announced later. A cordial invitation was received from the Batlow Co-op. Packing Co., and it was decided to arrange for as large a party as possible to visit Batlow. The Secretary would be pleased to receive suggestions for papers for the Conference, and items for the agenda paper.

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THE B. OPPOSITE.

A fruitgrower at Longley, near Hobart (Tas.), has a signboard on his fence which reads:—"No connection with the B. opposite."

The B. opposite complained to the police, and when the writer of the notice was told to remove it, he declined, saying that the B on the notice meant Bloke.

The sign still annoys the bloke opposite.—J.L.C.

A newly-married woman was shopping, and was determined that the grocer should not take advantage of her youth and inexperience.

"Don't you think these eggs are very small?" she said, critically.

"I do," answered the grocer, "but that's the kind the farmer sends me. They are fresh from the country this morning."

"Yes," said the shopper. "That's the trouble with those farmers. They're so anxious to get their eggs sold that they take them out of the nest too soon!"

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Aphis and other insects are common enemies of the orchardist and gardener. Protect your trees, vines and plants with "Black Leaf 40."

In the Orchard and Garden

"Black Leaf 40" is recommended for killing woolly aphis, apple aphis, peach aphis, aphis on roses, other flowers and vegetables, mussel scale (young), Harlequin fruit bug, holy or cross bug, oleander scale (young), San Jose scale (young), red scale (young), red mites (Summer), rutherglen bug, pear and cherry slug, thrip, fine scale (young), pea mite.

In the Poultry Yard

Paint the roosts lightly with "Black Leaf 40" just before the birds go to roost. Body-lice will be destroyed while the flock roosts. To help prevent mites from attacking fowls, tie or tack a piece of heavy cloth around ends of roosts and roost supports and saturate with "Black Leaf 40;" spray inside of house with "Black Leaf 40," three tablespoonsful to a gallon of water to which soap has been added.

"Black Leaf 40" has the endorsement of Agricultural Colleges, Experiment stations and orchardists. It is the World's leading aphis specific. It also kills the young larvae of many chewing insects when sprayed upon them so as to wet their bodies.

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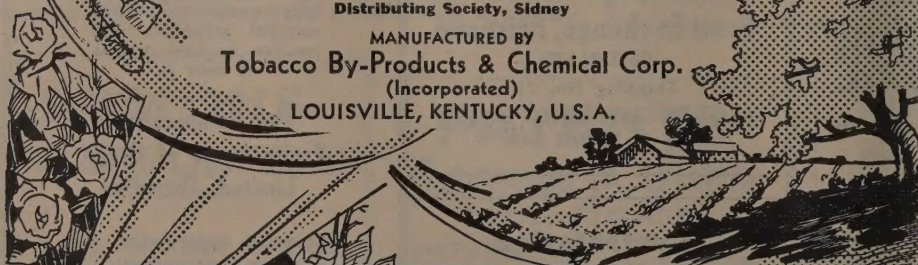
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HO! HUM!

This month's prize goes to the Scotchman who sent the surgeon's bill to his father-in-law when he learned that his wife's tonsils really should have been taken out when she was a little girl.

Rid the store and shelves of dust, and never have smeary windows.

"The glory is not in never falling, but in rising every time you fall."—Chinese Proverb.

Epitaph.

"Here lies an honest man and a good lawyer."

Visitor: "Why should it be necessary to bury two men in the same grave?"

F. CHILTON

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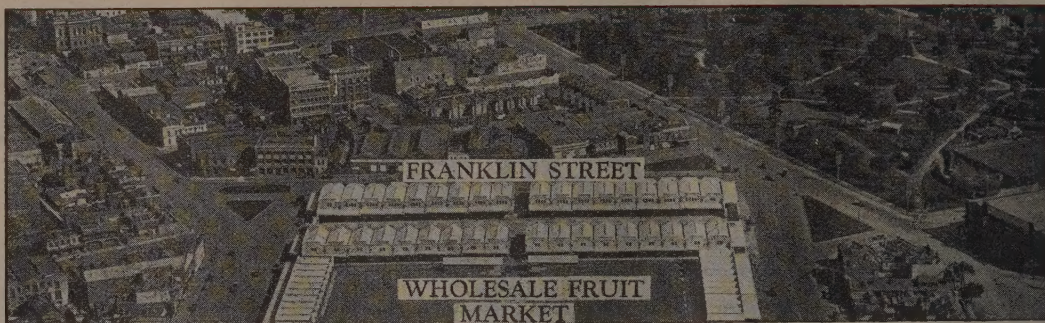
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